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THE

# DENTAL NEWS LETTER.

A QUARTERLY PUBLICATION.

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VOLUMES I., II. AND III. H K 5<sup>th</sup> 1884  
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JONES, WHITE & McCURDY,  
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# THE DENTAL NEWS LETTER.

Vol. I.

OCTOBER, 1847.

No. 1.

For the Dental News Letter.

MESSRS. JONES, WHITE & Co.

*Gentlemen*—In conformity with your request, that I should furnish you with an article in relation to the administration of Sulphuric Ether, to appear in the first number of the Dental News Letter, I would respectfully submit the following, as the basis of my impressions upon this most interesting subject; and trust, that my brethren in the profession will not only appreciate my motives, but receive in kindness those suggestions which so intimately pertain to the safety of life and health.

1st. The *potency* of an agent cannot be questioned, that is capable of suspending the reasoning faculties in less than two minutes;—that can so act upon the nervous centres and trunks, as to entirely annihilate the sense of feeling;—that will not only completely relax all voluntary muscles, but, at the same time, quicken those commonly called *involuntary*. I cannot, therefore, but deprecate its use by any one who is not well acquainted with the article as a medicinal agent.

2d. There are many conditions of the animal economy, wherein it would be imprudent, if not imminently dangerous, to administer Sulphuric Ether by inhalation. This fact most certainly implies the necessity of correct diagnosis.

3d. The importance of adopting the use of this article in a profession, the operations of which are, at times, so necessarily painful as our own, calls loudly against its abuse by irresponsible men. Should any unpleasant casualty occur from its misuse, much will be added to the present prejudices in relation to it; and the cause of humanity must, of course, receive a proportionate check. I would recommend to those in the profession, who are not medical licentiates, and who desire to use it in their practice, to require a certificate from the hands of the physician, of such as wish to be subjected to its influence; and in addition to this, to be governed by the pulse in all cases; never allowing it to rise above 150, or below 50 beats in a minute.

Having been much engaged in the use of this article for the last ten months, both in my own practice, and in that of Drs. Mutter and Pancoast, of this city, it affords me much pleasure to state, that I have not been knowing to a single instance (in more than five hundred cases) of an unpleasant character, beyond a

momentary excitement; and these have in all cases been induced either by *fear*, from having heard many false statements in relation to its effect, or from much prostration through long suffering, previous to being placed under its influence.

The limits of your periodical will not allow of my entering so fully into a report of cases as I should desire; but the following is so beautifully illustrative of its general effect, that I am induced to give publicity to it.

CASE.—My friend, Mr. D. Neall, Surgeon Dentist, introduced to me a patient of his, for the purpose of inhaling the ether, to have several teeth extracted; its influence was sufficiently lasting to enable him to remove *seven*. I had taken my seat immediately in front of the patient, and when the operation was completed, I remarked, “how do you feel now, madam?” Her reply was, “*thee had better begin, I feel that it is going off!*”

If agreeable, gentlemen, I will prepare for your next number a series of general directions, that may probably be found useful to those whose experience in the use of ether is somewhat limited.

J. F. B. FLAGG, M. D., *Surgeon Dentist*,

Arch Street, Philadelphia.

September, 1847.

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For the Dental News Letter.

## REPORT OF A CASE OF CANCRUM ORIS.

BY C. A. PECK, DENTIST, NORRISTOWN, PA.

About the middle of June last, a gentleman consulted me in regard to his son, six years of age, and gave the following history of his case.

Nearly six months previous, the lad fell from a fence and slightly injured the grinders of the right lower jaw—the inconvenience from which lasted for two or three weeks. He then, as the parents supposed, recovered from the effects of the fall; but complained at intervals after that, of soreness upon that side of the face where the teeth had formerly been loosened. Thus matters were until about six weeks before calling upon me, when the attention of the parents was attracted by the increasing complaints of their son. He at this time became restless at night, lost his appetite, and the right side of his face assumed a rounded, smooth and slightly inflamed appearance. Application was then made to a dentist, who removed one of the lower molars, pronounced it a case of scurvy in the gums, and recommended the alum and oak-bark wash. The boy continued to grow worse; became weak, emaciated, and more restless at night; staining his pillow with saliva, and a yellowish matter streaked with blood. He complained of continual pain in his face and teeth, and of a soreness

in the throat, and was losing strength so fast that his parents became alarmed for his safety.

When brought to me, his countenance was anxious and expressive of suffering; pulse quick and irritable; skin pale and feverish. His general system was characterized by languor and debility, and his constitution markedly scrofulous. Examination of the mouth showed the gums to be very inflamed, purplish and spongy all along the lower and upper incisors, and along the cuspidati and molars of the right side detached from the necks of teeth, which were covered with dark tartar, loosened, and somewhat raised from the sockets. On the inside of the right cheek, which was much swollen, there was a large deep ulcer, with uneven indurated edge and gangrenous bottom, very painful, of an ash color, and bleeding upon the slightest touch. This ulcer extended upward over the gums to the roof of the mouth, and backward to the uvula. It also extended downward over the gums to the edge of the tongue, which presented a raw purplish appearance, with several points of ulceration. The frænum was swollen and covered with apthous patches, exceedingly irritable, sensitive and disposed to bleed. The ulcers discharged an offensive acrimonious matter, to the excoriating properties of which were attributed an inflamed state of the roof of the mouth, tongue and fauces.

## TREATMENT.

*June 19th.*—Extracted the remaining lower and first and second upper molars of the affected side. Prescribed the following wash, to be applied with a camel's hair pencil, morning and evening.

R. Sulph. Cupri,	-	-	-	grs. x.
Pul. Cort. Cinchona,	-	-	-	3 ij.
Pul. G. Acac,	-	-	-	3 j.
Mel. Com.	-	-	-	5 ij.
M. et ft Aquæ Solutio.	-	-	-	5 ij.

*June 22d.*—The patient had a better appetite, and found less difficulty in swallowing.

*24th.*—Visible improvement. Extracted the right superior and inferior cuspidati.

*28th.*—The swelling of the cheek began to lessen; removed the right inferior lateral incisor.

*July 1st.*—The patient was rapidly improving; cleansed the remaining teeth, and recommended as a dentrifice:

R. Pul. Crett. Prep.	-	-	-	3 i.
Pul. Oris f.	-	-	-	3 i.

M.

*5th.* The strength of the lad had increased, he slept well at night, and the ulcers were fast disappearing from the cheek, tongue and uvula. The bowels being constipated, advised the use of an aperient.

12th. Ulcers could be observed only in the sockets of the extracted teeth. In consequence of their presenting an indolent appearance; the strength of the wash was increased by the addition of

Sulph. Cupri, grs. iij.

August 1st. The patient was well and hearty, and the first permanent molars had made their appearance.

Norristown, Pa., Oct. 11th, 1847.

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For the Dental News Letter.

## THE EFFECT OF MERCURY ON THE TEETH.

It is very well for dentists to have at least one "scape goat," on which to lay the sins, that in this day and generation number the poor denizens of the dental arch among the "*fading race*." Calomel, by common consent, has long since been installed with horns, and, of course, a majority must rule.

There is no doubt, that mercury is the cause of the loss of many, *very many teeth*; but how? and how far?

More than one half of those visiting the dentist in this country, (the West,) insist on giving the diagnosis of their case; and the universal cry is, "my teeth were destroyed by calomel." Now mercury acts on the secretory organs, membranes, and glands, and in the mouth the effect is seen in the false secretion of the salivary glands, causing a secretion of tartar, which is deposited on the neck of the tooth, and acting as a foreign body, causes a disease of the gums and separating it from the tooth, acts on the alveolar process causing its absorption.

Sand confined there would cause the same thing, and if this foreign substance could be removed from the neck of the tooth, nearly all of the disease from mercury would be removed. It is true, that the secretions of the mucous membrane of the stomach is so changed, that it will act on the teeth; but not to change them from sound to carious ones. As I understand it, *mercury* does not act as a solvent of the lime of the enamel, and bone of the tooth causing caries, or necrosis in any shape; and it is a curious fact, that in those teeth that are heavily coated with this calculus or tartar, the caries, if any existed at the commencement of the deposit, will be found to make slower progress than in any other teeth.

But, says the patient, "I know better, for my teeth were white and sound before my sickness, and now they are full of holes," (*ergo*) it must have been the calomel. True, the teeth may have been white before, and dark now; but the mercury has only caused a development of disease, that existed perhaps for years, but now discovered by the patient, by the false secretions acting on the decomposed part of the tooth, which, although white, was

still in a state of partial decomposition ; also, by a disease and inflammation in the periosteum of the fang, the teeth have become loosened, and the air has been freely admitted between the teeth, where daylight never penetrated before.

Indirectly, the tooth may be acted on organically by mercury by the failure of the system to afford the proper supply of animal matter necessary to form the proper proportion of its organic structure, to resist the action of chemical substances externally. This remote cause, however, is not the agent of the sudden development of the disease so much complained of. For one, I very much deprecate the universal and almost unlimited use of mercury ; but I am not willing to be one of those croaking "*one idea*" dentists, who are willing to endorse the popular edict when thrust on us, because it is easier to fall into line than put to test principles by comparison with facts.

C.

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Reported for the Dental News Letter.

## PROCEEDINGS OF THE PENNSYLVANIA ASSOCIATION OF DENTAL SURGEONS.

The Society met October 5th, at 7 o'clock, P. M., in the Museum Building. DR. S. T. BEALE in the chair.

Minutes of previous meeting read and adopted.

Committee on revision of Constitution and By-Laws reported, which report was accepted, and laid over till next stated meeting. (This report proposes some important alterations in the Constitution and By-Laws, which we think will prove beneficial, as being more liberal and comprehensive.

The resignation of Dr. J. M. Harris, was read, and, on motion of Dr. E. Parry, it was laid over till next meeting. This action was taken, because Dr. Harris gave no reasons for his desire to withdraw.

The Treasurer's report was read and accepted. This report was very favorable to the finances of the society.

On motion of Dr. E. Parry, the society went into an election for officers for the ensuing year, when the following gentlemen were elected :

*President*, DR. ELY PARRY, Lancaster, Pa.

*1st Vice President*, DR. S. T. BEALE, Philadelphia.

*2d Vice President*, DR. JAS. FLEMING, Harrisburg, Pa.

*Recording Secretary*, A. R. JOHNSON, Philadelphia.

*Corresponding Sec'y*, DR. J. D. WHITE, Philadelphia.

*Treasurer*, F. REINSTEIN, Philadelphia.

*Examining Committee*.—DR. J. D. WHITE, *Chairman*, DR. ELY PARRY, DR. S. T. BEALE, C. C. WILLIAMS, FRED. REINSTEIN.

On motion of Dr. White, a vote of thanks was ordered to be

tendered to Dr. G. A. Plantou, for the able and efficient manner in which he presided over the society during the last two years.

Drs. Beale and Fleming, were appointed to deliver essays at the next stated meetings.

Oral communications being in order, Dr. J. D. White gave some very interesting cases of galvanic action, where silver plates and tin fillings were in the same mouth, which action was destroyed by removing the tin and filling the cavities with gold. Here considerable discussion ensued, as to which was the positive and negative poles, the tin or silver; in which Drs. White, Beale, Fleming, Parry, and Williams participated.

Dr. Parry communicated cases of persons having symptoms of nausea, caused by wearing highly polished gold plates in their mouths; which, at the earnest solicitation of the patient, he roughened or scored, when they were worn without such symptoms, and with entire comfort. Dr. Beale bore testimony to the same, by the relation of similar cases in his own practice, as also did Drs. Fleming and Williams.

Mr. C. C. Williams reported an interesting case of a lady having her hearing restored by the extraction of some teeth, (principally molars,) which were considerably decayed.

Dr. Parry related similar cases, and gave an able exposition of the causes, &c.

At about 11 o'clock, P. M., the society adjourned.

This meeting was well attended, and much interest was manifested for the welfare of the society by those present M.

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### EXTRACT FROM AN UNPUBLISHED LECTURE.

Dental Surgery may be divided into two portions, and treated in two different ways. The one historical, the other that which relates to principles and facts. The first division relating to its history, comprises the advancement of the sciences from their origin to the present time, and exhibits the gradual development of facts, the various theories and systems that have in succession prevailed. This information is of great importance to us; it brings in review before us the errors of those who have preceded us, and warned by their example, we may avoid the mistakes they fell into. It opens before us all that has been tested by time, observation, and experiment; and we are spared the mortification of proposing as original, what has been long known, and of receiving, as truth, that which has been long demonstrated to be false; although this first branch is useful, and ought not to be neglected, it is less important than the other division consisting of principles and facts. On a perfect knowledge of both, depends its proper application to practical purposes. S.



# THE DENTAL NEWS LETTER.

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OCTOBER, 1847.

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Our object in publishing the "News Letter" is, 1st:—that the profession, both in the United States and Europe, may be informed of the improvements which have been, and are now being made in the manufacture of artificial teeth; the various tools and aids in the workshop, and instruments for the operating room. 2d. To bring before the profession all that is new in the theory and practice of Dentistry, through the medium of original communications, essays from old and young practioners, collations from authors, and items of news on all subjects relating to Dentistry.

To accomplish these purposes, we want the aid of the profession in furnishing contributions to its pages.

We have put the subscription price so low as merely to defray the cost of publication, which is all we wish, so that it is within the reach of all.

---

Our columns are open, and communications solicited on all subjects of interest relating to dentistry. Let them be short, and to the point; nothing personal, but honest convictions, freely and boldly expressed.

We seek the truth, and free investigation is the only way to arrive at it.

---

We expected to publish in this number an article from Dr. J. D. White, but in consequence of a press of engagements, he was unable to complete it. He has, however, promised it for our next number, when our readers may expect to see it.

A friend at St. Louis has sent us a couple of short articles, which may be read with profit. We trust he will not forget our regular issues.

---

Dr. Harris has just published a new and revised edition of his work on Dentistry, containing some eighty additional plates, and two hundred pages new matter. This makes it the most complete and comprehensive work on Dentistry now extant.

We are ready to supply the profession at publisher's prices.

---

We give, on another page, an article from Dr. Flagg, on the administration of Sulphuric Ether, which contains some good advice.

We would be pleased to have the article on general directions for using it, for our next number, as it is a subject of vital importance to the profession.

We would call the attention of the profession to an improvement which we have made in the manufacture of Artificial Teeth, and particularly in the molars and bicuspid. These teeth are now formed from nature; having a broad articulating surface, the superior and inferior molars differing in shape, so as to articulate perfectly.

We give the following extract from a letter of a very superior Dentist in the South, in proof:—

“I was pleased with the shape and color of your teeth, especially the molars and bicuspid, and I will say that I consider them the best yet made. Your shapes for the teeth mentioned (molars and bicuspid) are almost inimitable, if I might be pardoned for supposing the bicuspid top a little more approaching in style the articulating surface of the molar of your make. If they were so, they would be the first teeth that I ever saw, that I could articulate in full sets without grinding that surface.

I have already set two full sets, using your molars with perfect ease, without touching the articulating surface to the wheel, a desideratum greatly to be desired.”

A gentlemen in Ohio, writes thus:—

“The molar teeth I am delighted with, and as I have some sets to put up in a few days, you will please send me, by mail, the worth of the enclosed in molar teeth.”

These, with many others, we could give, had we room, besides those in our list of references, clearly show a great improvement in this one kind of teeth, which is worthy the attention of the profession, and we are satisfied, that those who have once used them, or even seen them, will use none other.

The improvement in the single teeth consist in their being made fuller on the surface, or more distinct in character; having a roundness toward the base like the natural teeth, all combining to give them a more lively and natural appearance than those made heretofore.

We add the following, from a letter, in reference to our new blow-pipe.

“I received the blow-pipe, and I am much pleased with it, I put it up to my work-table without any difficulty, and have used it exclusively in making three sets of teeth; the soldering of all of which was perfectly smooth, and none of the teeth cracked, which I consider a good beginning for a new blow-pipe. I would not exchange it for any blow-pipe I have ever used, and I do not think it is possible to improve it, unless by enlarging the air chamber; in fact, it is the most satisfactory purchase I ever made.

M. DEPUY.

We recollect reading a series of letters written by a New England lady, and published in one of the Boston journa's, in one of which, she speaks of a friend of hers who had lost all the enamel from his teeth; and goes on to state, with all the gravity and confidence imaginable, that it was subsequently reproduced. In conversation with an elderly gentleman of the profession, he advocated the same theory, and, what is more, believed it firmly. Now we had supposed that the organ which produced the enamel, as well as tooth bone, ceased to exist as soon as its work was accomplished, and it was on the ground of ignorance on his part, that we excused him. Surely, we have not read the various authors on dentistry aright, if such be the case.

The above lady, no doubt, believed such to be the fact, and in her ignorance, mistook tartar for denuded bone; on the removal of which, the enamel was exposed, which led to the supposition that it was a new enamel.

Verily, there are some *learned ladies* in the East.

We have received the first number of the second volume of the "New York Dental Recorder," much enlarged, and filled with good and useful matter to the profession. We will be happy to receive subscriptions for it.

### CAUTION.

As we have understood that some of our customers are under the impression that a person calling himself Samuel Stockton White (who has forwarded circulars to most of them) is connected with us in our business, we deem it necessary to say, that he is in NO WAY CONNECTED WITH US, and we caution our friends, if they wish to obtain *Stockton's Teeth*, to address their orders to

S. W. STOCKTON & Co.

No. 116 Chestnut Street, Philadelphia.

The above, copied from Stockton & Co.'s Dental Intelligencer, in which it has been published for upwards of a year, has, I presume, been noticed by most of the profession. That *such an impression* was ever produced by any thing said or published by me, or to which I was a party, is incredible; likewise that any one has been so deceived who has had an opportunity of comparing the two manufactures. If, however, any one by *any* means has been so impressed, none can regret it more than I do.

"*Calling himself, &c.*" Unfortunately for this implied assumption of name, on my part, I am indebted to my parents for the patronymic. "But what's in a name?" It is not that which *annoys* the publishers of the above journal, or benefits me. The teeth would sell equally as well were they made by Smith, Brown, or Jones. Supposing, however, that the feelings which could dictate, and the objects which could be expected to be gained by its continued publication, have been, or will be, readily recognized, I deem it unnecessary to notice it farther.

SAMUEL STOCKTON WHITE.

A dentist passing through one of our Southern cities, called upon one of his professional brethren, a resident, and in the course of conversation on the many topics of interest, professionally, the inquiry was made by the resident dentist, what kind of gold foil the other used, alluding of course to the thickness; he answered, "A No. 1, and nothing else." "Well," replied our friend, "I use Jones' No. 6, which is good enough for me."

We have just received a new article for the administration of ether. It is called "Dr. Flagg's Inhaler," and is admirably adapted to the purpose. It is made of tin, and very portable, indeed can almost be put in the pocket. Price \$2 50.

### LETHEON.

Dr. Jas. H. Pickford, in an article in the London Morning Chronicle, against the use of ether, says:

There is a chemical alteration in the vital constituents of the blood; for not only is that deprived of its oxygen, and of the power of coagulation—like the black vitiated blood of malignant and putrid fevers—but the corpuscles, whence fibrin is formed, are actually dissolved. Hence the blood takes a long time to regain its life-supporting, flesh-forming character; wounds show everted edges and refuse to heal; and the patient often sinks into death. The use of ether also tends to produce tubercular consumption of the lungs, as was apparent in thirty cases of death after the use of ether in the Dublin Hospital.

Surely, this is a discouraging picture; but is it true? If so, it is what our American practitioners have not as yet discovered.

We add the following from the Morristown correspondent of the Newark Advertiser:

The operation, which was performed by Mr. Colburn, a skilful dentist, consisted in cutting open the nail on the second finger of the right hand, for the purpose of removing a sliver of wood which had been forced under it. The nail had to be opened the whole length, as the sliver was forced under it so far as to be impossible to remove it in the ordinary way, by taking hold of the end and pulling it out, thus rendering it one of the most painful operations in surgery. The patient was a girl working for one of the citizens. After inhaling the Letheon for about two minutes, she appeared to be in a state of perfect resignation, a smile settling upon her countenance. The operator then taking her finger preparatory to the operation, she raised her head and looked inquisitively at him, as much as to say, what do you want with my finger. Upon asking her if she was willing he should take the sliver out, she smilingly replied, yes! Mr. C. then, with a knife, slit open the nail, and inserting a pair of tweezers, instantly removed the splinter. During the operation, which lasted about two minutes, the patient looked on smilingly, exclaiming the Doctor has mesmerized me. When asked if it hurt, she replied no, I did not feel it. All present appeared to be perfectly satisfied she did not suffer any pain."

ASAHEL JONES.

SAMUEL STOCKTON WHITE.

J. R. McCURDY.

## JONES, WHITE & Co.

MANUFACTURERS OF

# PORCELAIN TEETH,

## GOLD & TIN FOIL, PLATE, SPRINGS,

PLATINA PLATE & WIRE, EMERY WHEELS, &c. &c.

**No. 263 Broadway, (opposite the Park) New York ;  
And No. 273 Race St. (one door above Eighth,) Phila.**

J. W. & Co. have, at the above named places, a full assortment of PLATE, PIVOT, MOLAR, BICUSPID, and GUM TEETH; GOLD and TIN FOIL, EMERY WHEELS and SLABS, DENTAL FILES, INSTRUMENTS, CHAIRS, &c.; where we would solicit the patronage of the Profession, pledging ourselves to use our utmost endeavors to give satisfaction, as particular attention will be paid to select Teeth according to order.

All orders, *enclosing the cash*, will be promptly and carefully attended to.

N. B. Orders for Instruments will be executed with care, at manufacturers' prices.

## RECOMMENDATIONS.

*Lancaster, Pa., March 12, 1846.*

Having used, and tested in other ways, a number of teeth manufactured by Samuel Stockton White, I take pleasure in stating, that in my opinion, they are as good, in every particular, as any I have ever used, and that they have a very natural appearance when properly set in the mouth. I would, therefore, recommend them to the members of the profession.

E. PARRY.

*Fredericksburg, Va., March 10th, 1847.*

It gives me pleasure to add my testimonial in favor of Jones, White & Co.'s Teeth. I have used them almost exclusively in my practice for 18 months, and find them a superior article, both in *color and shape*, and they withstand the heat of the blow-pipe in soldering, as well as any I have ever used.

JAS. H. LAWRENCE, *Dentist.*

I have tested pretty fully Messrs. Jones, White & Co.'s make of Artificial Teeth; I consider their style of plate incisors of the most perfect, in every particular, I have ever seen. In addition to this, they put up their plate teeth on cards, in well matched sets of four, six, or more teeth, as may be desired; a matter of much importance to those who order teeth from a distance, and one that should secure the undivided patronage of this portion of the profession.

S. P. HULLIHEN.

*Wheeling, Va., March 5th, 1847.*

*Richmond, Va., February 24, 1847.*

It gives me great pleasure, to express the high opinion which I have formed of the Teeth manufactured by Messrs. Jones, White & Co., of Philadelphia and New York. Besides, being equal to any other Teeth manufactured, in regard to color and durability under the action of the blow-pipe, they are superior to most that I have seen, in shape and general finish. Messrs. J., W. & Co. have made a great improvement in the shape of their Molar and Bicuspid Teeth, which gives them a most elegant appearance.

As a matter of much importance to those who have to order their Teeth from a distance, I take no less pleasure in saying, that Messrs. J., W. & Co. may be most implicitly relied on.

J. G. WAYT, *Dentist*, 209 Main Street.

I have occasionally used the Teeth manufactured by Messrs. Jones, White & Co., and cheerfully recommend them to gentlemen of the profession, as being quite equal to the best at present offered in the market.

J. F. B. FLAGG, M. D., *Surgeon Dentist*, 216 Arch Street.

I take pleasure in recommending to the profession the Gold Foil and Teeth manufactured by Messrs. Jones, White & Co., of New York and Philadelphia, as very superior articles. Their Gold Foil has given such satisfaction, that I have never used any other in my practice, and as far as I can judge of their Teeth, in the short time I have used them, they have proved superior to any that I have ever seen.

HIRAM N. WADSWORTH, *Surgeon Dentist.*

Having used Mr. Samuel Stockton White's manufacture of Artificial Teeth, we can recommend them to the Profession, as being a superior article. In shape they are a more exact imitation of nature than any we have seen, as they are relieved from that bold, glaring appearance, which Artificial Teeth heretofore usually presented when in the mouth.

They are beautifully translucent, having a lively, vital appearance, and we can but congratulate the manufacturer on their delicacy of coloring.

Jas. M. Harris, Dentist, Phil	Wm B Baker, Dentist, Phil.	J. W. Newhouse, Philada.
Fred'k Reinstein, "	Jos. O. Ely, "	Fuiman Summerill, "
C. C. Williams, "	B. Ripperger, "	Wm. R. White, "
C. D. Everett, M. D. "	H. Avery, "	T. E. Trendelenburg, "
Henry K. Nutz, "	Jas. S. O'Neal, "	Spencer Roberts, "
Elijah M. Neal, "	Samuel L. Mintzer, "	Wm. L. Carr, "
W. W. Fouche, "	Geo. E. Murray, "	Peter Ebert, "
S. Dillingham, "	Win. P. Spicer, "	L. Marotte, "
Thos. Wardle, "	Isaac Griffith, "	L. F. Meyer, "
Jos. C. Cowperthwaite, "	Henry S. Porter, "	Geo. L. Nagle, "
C W. Banyon, "	Edward Flaig, "	Wm. W. Bishop, "
Wm. Ripperger, "	Jno. M. Crowell, "	
Charles Moore, Dentist, Pottstown, Pa.	Thos. W. Evans, Dentist, Lancaster, Pa.	
Geo. Roberts, " Oxford Village, Chester Co., Pa.	S. M. Wampole, " Bordentown, N.J.	
	S. B. Fithian, " St. Louis, Mo.	

From the appearance of the Teeth, and the above testimony, we believe them to be all they are represented.

L. R. Koecker, M. D., Dentist, Philadelphia.	Wm. H. Clark, Dentist, Philadelphia.
S. T. Beale, " "	E. Vanderslice, " "
Wm R. Hall, " "	Robert Burkhart, " "

February, 1847.

We have been, and are now using Teeth manufactured by Messrs. Jones, White & Co. with entire satisfaction, and can cheerfully and confidently recommend them to the profession as a superior article.

A. W. Brown, D. D. S., New York.	— Northall, N. Y.
J. S. Ware, M. D. "	A. Johnson, M. D. "
J. M. Howe, D. D. S. "	J. Allen, "
Benj. Lord, D. D. S. "	M. K. Bridges, D. D. S. Brooklyn, "
A. W. Crane, M. D. "	H. P. Fisher, " "
G. E. Hawes, D. D. S. "	Geo. Rose, " "
M. Crane, " "	Wm. S. Dillingham, " "
J. G. Barbour, " "	J. E. Miller, " "
E. Barlow, " "	Robert Carroll, Flemington, N. J.
H. G. Blackman, " "	Wm. G. Lord, D D S., Newark, "
C. D. Brown, M. D. "	Messrs. Colburn & Son, " "
J. Brown, " "	S. L. Dorrance, " "
H. Burdell, " "	J. Hassell, " "
T. H. Burras, M D. "	W. H. Conover, " "
A. C. Castle, M. D. "	S. G. Arins, M. D., Elizabethtown, "
L. Covell, " "	A. W. Kingsley, M. D. " "
B. C. Dutcher, M. D. "	A. D. Newell, M. D., New Brunswick, "
J. Gilbert, " "	A. G. Jayne, Moorestown, "
T. Holmes, " "	R. L. Warner, Trenton, "
Messrs. Hitchcock & Blaisdell "	J. E. Phillips, Vincenttown, "
W. B. Middleton, " "	E. W. Haines, Newark, Delaware.
M. L. Osborn, " "	D. H. Potter, Bridgeport, Connecticut.
T. Paine, " "	C. Merritt, "
L. F. Randolph, " "	Jno K. Townsend, Philadelphia.
H. Dorion, " "	A. T. Smith, "
E D. Root, M. D. "	T. L. Buckingham, "
C. S. Rowell, D. D. S. "	Charles S Hooker, "
G. F. Shaffer, " "	B. A. Rodrigues, M. D , Charleston, S. C.
H. E. Schoonmaker, " "	J. R. Solomons, M. D. " "
G. Smilie, " "	M. J. Gallagher, Wilmington, Delaware.
A. Vail, " "	J. S. Clark, St. Louis, Mo.
A. S. Van Praig, " "	

# THE DENTAL NEWS LETTER.

Vol. I.

JANUARY, 1848.

No. 2.

For the Dental News Letter.

## GENERAL DIRECTIONS FOR ADMINISTERING SULPHURIC ETHER BY INHALATION.

GENTLEMEN—The importance of bringing into general use Sulphuric Ether, in aid of painful surgical operations, as well as the treatment of many chronic and acute diseases by its agency, seems to call for a few remarks as to its administration, to meet the demands of many who are desirous of learning and contributing to the relief of suffering man, and other animals.

I know of no condition wherein the use of this article can be considered as really dangerous, if governed by a knowledge of its effects under all circumstances, and handled with that prudence which should ever apply to all powerful agents—as, for instance, steam can be used with *safety* in a *poor boiler*, in view of certain considerations—none of which, however, embrace the idea of ignorance or recklessness on the part of the engineer.

Ether, to be inhaled into the lungs, should be very highly rectified—washed free from its acid and alcoholic properties—rendering its specific gravity but little more than half that of distilled water.

No apparatus should be used as an *inhaler* that is not amply provided for the admission of atmospheric air, or that by any means should render the breathing difficult. A good sponge, well saturated with ether, is probably the best and simplest method of administering it—but a tumbler or cup for the purpose of holding a sponge, has been found both convenient and economical, particularly where very frequent use of ether is required.

It is well to establish that understanding between yourself and patient, which will secure their most implicit confidence, both in yourself, and the full power of the ether to accomplish the end desired—requiring them to answer any question you may put to them while inhaling, as long as they perfectly comprehend you. By the *manner* in which they answer, you will find one very good guide when to perform the simple operation of extracting one or two teeth. I have found that *partial* etherization has been preferable in all short operations, and particularly where the co-operation of the patient has been at all desirable.



The *pulse* should *always* be consulted—its general tendency is upwards or quickened—when this takes place very rapidly, it is proper to stop with the Ether for a few inhalations, until reaction takes place, when a repetition of the Ether, will, not unfrequently, promote its downward tendency. Under ordinary circumstances, I consider it safe to increase a pulse to 160 beats in the minute, or to suffer it to decrease to 50; but of course there must be exceptions to this rule too obvious to need particularizing.

The expression of the countenance, and the temperature of the head, should be observed. When the face becomes suddenly turgid, cold water should be applied to the forehead and temples; suffering the patient to breathe ammonia, or concentrated vinegar, allowing, at the same time, plenty of fresh air—directing them to take *long* inspirations. The variation of temperature of the head, is best detected by the habit of taking the pulse from the temporal artery.

The Ether should be brought gradually to the mouth of the patient—by so doing all irritation of the larynx and lungs is avoided. Direct to take *regular* and *natural* inspirations—to avoid swallowing it into the stomach; and should the breathing become *stortorous*, or in any way distressed, desist in its use.

If it should be found desirable to give the Ether to that extent, to induce narcotism, never suffer yourself to be thrown off your guard by any demonstration on the part of your patient. Firm, cool conduct on your part, is more remarked by the patient than the casual observer would suppose. It is not unfrequent that a loud outcry may be induced—a distressing groan, or other manifestations of inconvenience or pain; which invariably pass off, and the strongest assurances are given by the patient, (if aware of this fact,) that they know of no particular reason for such conduct.

It will be found, after inhaling for a minute, and no particular effect is produced, that by allowing the patient to take one breath of *atmospheric air*, considerable dizziness is felt; as a general thing, a very few inhalations after this are sufficient; and if the patient should resist, it is best not to meet that resistance by any physical force, but by that *firm* yet *kind* treatment which most gentlemen in our calling so happily practice.

Should the operation be one that will require the introduction of the finger or thumb between the teeth of the patient, it may be well to protect them with a bandage, in view of their closing the mouth, or you will, quite likely, be the first to receive intimation of this circumstance.

If Ether should produce much prostration, (which it is most apt to do, when the atmosphere is least charged with oxygen,) it is best to recommend self-exertion—as walking about, &c.—but if the desire to sleep is too strong to be resisted, entertain no fear from that indulgence, as they will soon awake refreshed.

After inhaling for a certain period, should any spasmodic action occur to retard the process of breathing, sprinkle a little cold



water suddenly into the face, or a pretty active slap between the shoulders will be sufficient to relieve any obstacle in this respect.

I have occasionally given the Ether for the removal of a tooth, and upon the effect passing off, some little complaint of headache was made—a few inspirations of the same, by the nose alone, will most commonly remove this difficulty.

J. F. B. FLAGG, M. D., *Surgeon Dentist*,

No. 190 Arch Street, Philad.

December 20th, 1847.

*P. S.*—January 10.—Since preparing the foregoing directions, I have been engaged in the use of *Chloroform*, an article which I am happy in saying must almost entirely supercede the ether for the purposes of surgical operations, if for no other reason than the following: There is little or no excitement attending its use—the sleep is more profound and lasting, the patient awakening as from a natural sleep, and generally unattended with dreams.

I administer it thus:—Saturate a sponge about the size of a chestnut, hold it to the mouth of the patient and direct that they breathe through the sponge, letting no air enter by the nose; about one minute is sufficient to produce narcotism long enough to remove three or four teeth. Two minutes proper inhalation will secure, in most cases, from ten to twelve minutes perfect slumber.

Sulphuric Ether is the antidote to any unpleasant effect produced by Chloroform, such as *nausea*, *headache*, &c. I would therefore recommend that this article may always be had in readiness for this purpose—a few inhalations will be found sufficient.

In conclusion, it might be thought at the present time, almost, if not entirely superfluous, to allow of these directions appearing before our professional brethern; you must of course, gentlemen, exercise your own discretion in this matter—but it does seem to me that Ether has opened the way for so much legitimate inquiry pertaining to our happiness, that many will yet be engaged with farther investigations by its agency.

## CARIES OF THE TEETH.

*Mr. President and fellow members of the Pennsylvania Society of Dental Surgeons*:—It is proposed in this short paper to present a few thoughts on caries of the teeth; a mere glance at this great subject will be sufficient to bring it before our minds for discussion. Therefore, you will not expect, nor can you desire to have it laid out at full length with all its details in the form of a dry essay.

The nature of this affection has rarely been understood, though many men of mind, talent, and education, have written upon it. Some of whom, indeed, have been acquainted with nearly all that

can be known of the ailments to which flesh is heir; but the supposed rays of light thrown upon it by some of them, have been mantles or errors, (not rays of light,) as so many coverings to hide from view nature's truth; a knowledge of which in this matter is indispensably necessary to the practical Dentist, for it lies at the very foundation of his profession.

Others, however, (and everlasting thanks are due to their names from the people generally, and the profession particularly, for what they have done, and of these, Dr. Harris, of Baltimore, stands foremost,) have with one hand raised those dusty coats of error, while in the other they held the lamp of science, trimmed by experience and lighted by observation; and thus discovered the true cause of this affection, which has brought much suffering upon humanity, and even more than can be described at this time, but which demand our most serious consideration, and all the talents and energies of all well cultivated minds to understand or alleviate.

This scourge from the Almighty, like others sent, for the violation of one of the many laws which he has given for the government of all his handiwork. This violated law (whether in the book of revelation or not) is found in the book of nature, which book must be most faithfully studied by that student of our branch of the healing art, who would excel in its practice, for he who studies closest the causes of disease, and nature's mode of healing, and never attempts to make a cure, nor to interfere until nature needs assistance, is among the greatest and best of physicians, and avoids much mischief. If every practitioner of the various branches of the healing art would take the book of nature for the man of his counsel and guide of his operations, and make himself nature's faithful servant, then quackery, which has grown up with such rankness around us, would soon turn pale, wither, and die, and those in our branch of it, having, or pretending (for it is generally nothing but pretence) to have secrets in their practice, whether it be their improved succedanium, ligament cutting, tooth, or mouth washes, dentifrices, manipulations, or any other thing, would not be patronised nor respected by the people, but looked upon and treated in the manner they should be, as "deceivers, empirics, quacks, humbugs, infidels, and enemies to science, morality and religion," and as this time advances, they must recede, that is, when light breaks upon them, they will follow the example of their adviser, (the old enemy of mankind,) by flying away to darker regions, for "they love darkness rather than light, because their deeds are evil."

But to return, some have drawn correct and invaluable conclusions from their long experience and close observations on the disease in question, and thrown them out freely for the benefit of mankind and the relief of suffering humanity, like good men, benefactors of their race, and shall we not thank and praise them?

Think how many there are, who, when they make a discovery, lock it up in their own bosoms as a secret, like traitors and enemies to God and man, can we praise such men, if they deserve the name of men, the answer will be no; they should be driven from society.

Though able men have raised their pens and voices and thrown much light on the nature of the disease in question, and chased away many dark clouds of error that long hung over it—still some remain, and the student fails to get from books a clear understanding of its nature. The names applied to it: Mortification, by Dr. Hunter and his followers; Gangrene, by Mr. Bell and others, and Caries by all at the present day, are terms that do not express the nature of this malady; hence, they lead astray and confuse the mind.

Mortification is divided into two stages, namely, gangrene and sphaculus—gangrene, though used synonymously with mortification by some authors, means only the partial death or suspended animation of a part, which is still susceptible of resuscitation, and this often takes place. Though gangrene generally terminates in sphaculus, this latter term is used by most authors as synonymous with mortification, and means total cessation of life, that is, death of a part of the body, which might possibly, if left to nature, slough off, but is generally removed by amputation.

The above term, however, should never be applied to disease in bones. When this state of things takes place in a bone, caries and necrosis are the terms which express it, and not gangrene and mortification.

Caries is an ulceration of bone, characterized by swelling, discharge of pulp and a peculiar odour, and is always (as is gangrene and mortification) a product of inflammation. But surely this does not describe the disease under consideration, for swelling in a tooth from caries is never found, nor a discharge of puss, and the peculiar odour of caries, unless these are produced by inflammation in the pulp, periosteum, alveolar process, or the maxillary bone, and escape through the pulp canal, in which case the skill of the dentist is not called upon to treat caries, for the only indication is extraction. This state of things often follow caries, for when in its progress it reaches the pulp, it becomes inflamed, and this inflammation might, and if left a few days, will run into the surrounding parts and puss may be thrown out from all of these forming a large abscess, unless it can escape through the tooth, but inflammation can never produce puss in the ivory of a tooth, nor is this affection a product of inflammation, for it attacks the unorganized enamel, or a necrosed tooth, as readily as it does a living one, and progresses alike in both. If these facts are admitted, and they cannot be denied, then the cause and nature of the malady are plain, for what can disorganize a dead tooth or the enamel of any tooth, but a chemical agent, chloric will remove all its gelatine

and leave the tooth, that is, the salt or earth of it, perfect in shape, but so fragile that it may be readily rubbed to powder with the finger and thumb. This salt may be entirely dissolved by hydrochloric acid, and thus the tooth may be converted into its original nothingness so far as our senses can desern. But when chemistry is called to our aid, we have no trouble in knowing what has become of it, and all the chemical changes it has undergone.

This acid will remove all the salt from a tooth or from any other bone, and leave the gelatine perfect in shape, and so flexible that the os humeri, os femoris, as well as other long bones, may be tied into a knot.

A thousandth part of a drop of this acid, placed on a tooth, and this repeated daily for a week, (taking care to put it upon the same part of the tooth,) the salt will be removed and a cavity will be formed, larger or smaller, as the tooth may be hard or soft, but it will be precisely such a cavity as is discovered between teeth daily, and the same treatment, namely, to remove the decomposed part and fill the cavity will save the tooth.

Another simple experiment is to take the decomposed part of any tooth, dead or living, whose cavity you are excavating preparatory to filling, put it on litmus paper and the paper will be reddened by it; this is a positive and undeniable proof that a chemical agent is there, with sufficient power to do this work of destruction.

Again, this disease never attacks those parts that are kept perfectly clean, but, on the contrary, it is invariably found on the lateral sides, that is between the teeth, or in some depression or place where foreign substances have been allowed to accumulate and remain, by the decomposition of which, an acid is generated; this acid does the mischief, it begins its work of destruction upon any part of the tooth on which it is formed, by dissolving the lime of it, and when this acid is generated between two of these organs, both are generally alike affected, and this is where it is most frequently found, for the simple reason, that those parts are seldom cleansed while the brush, tongue, cheeks and lips are continually rubbing the buccal and palatal sides.

Those persons who brush or rub away daily all accumulations of saliva or food from between the teeth by passing back and forth, a piece of floss silk, ribbon, tape, towel or the like, and pay particular attention to cleanliness of those organs, never have them thus affected, except in those parts which cannot be reached, as the fissures found on the grinding surfaces of the molares and bicuspides, which indeed often dips through the enamel; and again, if this malady was a product of inflammation, the crowning operation of the dentist (that of plugging) would never arrest its progress and preserve the teeth; on the contrary, it would in all cases aggravate the disease—but that its progress is arrested, and the dentures saved by it, is a truth not denied by any, and for how

long does it save them. That man who warrants his plugs for five years gives satisfactory evidence thereby that he knows but little or nothing of the science.

This operation, when perfectly performed, as it ought always to be, not only removes every particle or trace of the disease, but saves the tooth for life, provided it is always kept clean afterwards.

The above remarks are sufficient to show clearly the true cause and nature of the disease in question. An amendment to the nomenclature of our profession will not be proposed in this paper, nor will the subject be pursued further than to answer two questions, which no doubt are in the minds of all present, the first is, why did so many talented and learned authors upon this subject not understand it.

Answer, because they reasoned from analogy, and not from practical experience and careful observation. The second question is, why have so many practical dentists never come to a correct knowledge of its nature; the answer is, (and we must confess and deplore it,) because they have never studied Anatomy, Physiology, Pathology, Chemistry, &c., &c., the sciences upon which our science rest, a knowledge of which is indispensably necessary for making observations—drawing correct conclusions on this subject. Alas there are too many in this predicament at the present day who retard the onward progress of our science. No one should attempt its practice who does not love it sufficiently to study it faithfully and continually, and to do all he can for its advancement; but motives will not be examined here. Can any, in this day of knowledge and improvement, when men travel almost with the rapidity of lightning, and place their thoughts and wishes on the very wings of the lightning itself, and send them forth to be read at a thousand miles distant in one minute from the time of their birth—in this day of activity and forward march of all things, can any one who loves our science, fold his arms and do nothing for its advancement. The prospects of this and similar societies and the many efforts that are now being made, in this our day and country, for the improvement and elevation of our profession must animate and rejoice every heart that loves it—and now, in conclusion, let our motto be excelsior, excelsior, higher, and still higher, upward and onward, leaving not a stone or leaf unturned, that can bring light to our science; and if our motives (though not known to others) are not to amass dollars, but to relieve suffering humanity, surely that God who sent his Son from Heaven to earth on the greatest errand of mercy ever known in the universe, will crown our labors, and “reward us openly.”

This Essay was read before the Society, Dec. 15th, 1847, by S. T. Beale, M. D.—ED.

# THE DENTAL NEWS LETTER.

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JANUARY, 1848.

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## BALTIMORE COLLEGE.

We recently, while in Baltimore, paid a visit to the College of Dental Surgery, and was cordially received and politely shown through the building, which, by the way, is a very handsome and very convenient one, being nearly central in location, and in the best part of the city. We were in the lecture rooms, operating room, and the mechanical department, and were really surprised at the abundant facilities offered to the students.

While there, we saw one person in the operating room, for whom one of the students was filling some teeth, and we were told that they had as many present themselves for gratuitous operations as they were able to attend to, thus giving them an opportunity of learning practically as well as theoretically.

In an upper room they had material for cadaveric investigations, on which several were engaged. In a word, every facility, every advantage that could be desired by the Dental Student, can there be found, and we venture the assertion, that of all who get their diplomas there, none will ever disgrace the profession by malpractice.

We would commend all who desire a practical and scientific education in Dentistry, to the Baltimore College of Dental Surgery.

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We learn that the first capital operation performed in Philadelphia, under the influence of Chloroform, was that of amputation of a scirrhus breast for a poor woman in Kensington, on Saturday, 8th inst. Operation by Dr. Gilbert, of the Pennsylvania College, assisted by Dr. Grant. Chloroform administered by Dr. Flagg, of this city. The patient suffered no pain whatever, and has been doing well ever since.

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## CHLOROFORM.

As this new anæsthetic agent is exciting the earnest attention of the Dental practitioner, we hasten to lay before our readers all that has been published that would be interesting, and we cannot withhold an expression of opinion in reference to its qualities.

We confidently believe that it will entirely supersede the ether. And further, that it will be used by those who had objections to, and would not use the ether, for these reasons: that it is more simple, less dangerous, acts more rapidly, and, as a general thing,

leaves the patient more free from those unpleasant feelings which are consequent upon the inhalation of ether.

Professor Simpson, of Edinburgh, who claims to be the first to apply it for the purpose of suspending pain, says in his communication to the Medico-Chirurgical Society of Edinburgh :

“It is a dense, limpid, colorless liquid, readily evaporating, and possessing an agreeable, fragrant, fruit-like odour, and a saccharine, pleasant taste.

As an inhaled anæsthetic agent, it possesses over sulphuric ether the following advantages:—

1. A greatly less quantity of chloroform than of ether is requisite to produce the anæsthetic effect ; usually from a hundred to a hundred and twenty drops of chloroform only being sufficient ; and with some patients much less. I have seen a strong person rendered completely insensible by six or seven inspirations of thirty drops of the liquid.

2. Its action is much more rapid and complete, and generally more pleasant. I have almost always seen from ten to twenty full inspirations suffice. Hence, the time of the surgeon is saved ; and that preliminary stage of excitement, which pertains to all narcotizing agents, being curtailed, or indeed partially abolished, the patient has not the same degree of tendency to exhilaration and talking.

3. Most of those who know from previous experience the sensations produced by ether inhalation, and who have subsequently breathed the chloroform, have strongly declared the inhalation and influence of chloroform to be far more agreeable and pleasant than those of ether.

4. I believe, that considering the small quantity requisite, as compared with ether, the use of chloroform will be less expensive than that of ether ; more especially, as there is every prospect that the means of forming it may be simplified and cheapened.

5. Its perfume is not unpleasant, but the reverse ; and the odour of it does not remain, for any length of time, obstinately attached to the clothes of the attendant,—or exhaling in a disagreeable form from the lungs of the patient, as so generally happens with sulphuric ether.

6. Being required in much less quantity, it is much more portable and transmissible than sulphuric ether.

7. No special kind of inhaler or instrument is necessary for its exhibition. A little of liquid diffused upon the interior of a hollow-shaped sponge, or a pocket-handkerchief, or a piece of linen or paper, and held over the mouth and nostrils, so as to be fully inhaled, generally suffices in about a minute or two to produce the desired effect.

I have not yet had an opportunity of using chloroform in any capital surgical operation, but have exhibited it, with perfect suc-



cess, in tooth drawing,\* opening abscesses, for annulling the pain of dysmenorrhœa and of neuralgia, and in two or three cases where I was using deep and otherwise very painful galvano-puncture for the treatment of ovarian dropsy, &c.

Chloroform, chloroformyle, or the perchloride of formyle, may be made and obtained artificially by various processes,—as by making milk of lime, or an aqueous solution of caustic alkali act upon chloral,—by distilling alcohol, pyroxylic spirit, or acetone, with chloride of lime,—by leading a stream of chlorine gas into a solution of caustic potass in spirits of wine, &c. The preparation which I have employed, was made according to the following formula of Dumas :—

“ R.—Chloride of lime in powder,	-	-	℥iv.
Water,	-	-	℥xii.
Rectified Spirit,	-	-	f ʒxii.

“ Mix in a capacious retort or still, and distil as long as a dense liquid, which sinks in the water with which it comes over, is produced.”—(*Gray's Supplement to the Pharmacopœia*, 1846, p. 633.)

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The editor of the Baltimore Dental Journal, says:—“Thus far we have exercised much caution in administering chloroform, but from the few experiments we have made, we are inclined to believe that it is far superior to ether—it is certainly more pleasant to the patient”—“and it is more efficient and rapid in producing the anæsthetic effect. So far as our own observations go upon the subject, none other than the most delightful sensations are produced by its inhalation, and it leaves no disagreeable effects about the head, nausea, or other symptoms”—“it apparently produces an immediate sedative effect without materially increasing the frequency of the pulse.”

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We have received, and shall keep on hand, a supply of the purest Chloroform, which we can sell by the ounce or pound.

\* A young dentist who has himself had two teeth extracted lately—one under the influence of ether, and the other under the influence of chloroform—writes me the following statement of the results:—“About six months ago I had an upper molar tooth extracted whilst under the influence of ether, by Mr. Imlach. The inhalation was continued for several minutes before I presented the usual appearance of complete etherization; the tooth was then extracted; and, although I did not feel the least pain, yet I was conscious of the operation being performed, and was quite aware when the crash took place. Some days ago I required another molar extracted on account of toothache, and this operation was again performed by the same gentleman. I inhaled the vapor of chloroform, half a drachm being poured upon a handkerchief for that purpose, and held to my nose and mouth. Insensibility took place in a few seconds; but I was so completely *dead* this time, that I was not in the very slightest degree aware of any thing that took place. The subsequent stupefying effects of the chloroform went off more rapidly than those of the ether; and I was perfectly well and able again for my work in a few minutes.”



## MOUTH PLATE OR NAPKIN HOLDER.

All who fill teeth will admit the necessity of not only having the cavity dry, previous to introducing the filling, but that the gold shall remain perfectly dry through the whole time of packing; indeed, until the whole mass is *solid*. To do this, requires that the mouth should be kept open and still, for a considerable time, (if the filling be large,) and also that the salivary ducts should be stopped as effectually as possible.

In the under jaw this is sometimes very difficult, owing to the motion of the tongue, and the activity of the sub-lingual glands.

To remedy in some measure, this difficulty, this article was invented.

Its manner of use is as follows: fold a small napkin so that it shall nearly fill the space between the bicuspid, and extending posteriorly as far as the middle of the tongue, pressing it down on the sub-lingual ducts as closely as possible, then lay the broad mouth piece on the napkin, putting the pin through several folds of it, and pressing the spring backwards, rest the pad in the roof of the mouth; the force of the spring will be sufficient to keep the napkin in its place, and to keep the mouth dry, to the end of the operation, if all the steps have been carefully taken. In some very wet mouths, there is a great advantage in lying on the mouths of the ducts a small roll of soft blotting paper, and then placing the napkin over it.—*Amer. Jour.*

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I have been using the mouth plate, or napkin holder invented by Mr. Henry Lawrence, for 9 or 10 months, and in a majority of cases could not dispense with it. By its use I am enabled to keep the Molar and Biscuspid teeth in the lower jaw, perfectly dry through the entire packing and filling. I would therefore recommend its use to all dentists, who wish to make compact solid fillings, and exclude the moisture while packing the gold.

They are for sale by Jones, White & Co.

ELISHA TOWNSEND, *Dentist.*

January, 13, 1848.

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We have made arrangements with Mr. H. Lawrence, for the exclusive manufacture and sale of the "above *Tongue Plate* or *Napkin Holder*, and are now ready to supply the profession.

JONES, WHITE & Co.

ASAHEL JONES.

SAMUEL STOCKTON WHITE.

J. R. McCURDY.

**JONES, WHITE & Co.**

MANUFACTURERS OF

**PORCELAIN TEETH,****GOLD & TIN FOIL, PLATE, SPRINGS,****PLATINA PLATE & WIRE, EMERY WHEELS, &c. &c.****No. 263 Broadway, (opposite the Park) New York;  
And No. 273 Race St. (one door above Eighth,) Phila.**

J. W. & Co. have, at the above named places, a full assortment of PLATE, PIVOT, MOLAR, BICUSPID, and GUM TEETH; GOLD and TIN FOIL, EMERY WHEELS and SLABS, DENTAL FILES, INSTRUMENTS, CHAIRS, &c.; where we would solicit the patronage of the Profession, pledging ourselves to use our utmost endeavors to give satisfaction, as particular attention will be paid to select Teeth according to order.

All orders, *enclosing the cash*, will be promptly and carefully attended to.

N. B. Orders for Instruments will be executed with care, at manufacturers' prices.

**DENTAL CATALOGUE.****Teeth.**

Plate Incisors.	Excising, straight and curved Forceps,	1 75
“ Cuspidates.	Separating, or splitting Roots	“ 1 75
“ Bicuspid.	Hullihen's Screw Forceps, for extract-	
“ Molars.	ing Roots, - - -	3 00
Pivot Incisors.	Small right and left Forceps, for Chil-	
“ Cuspidates.	dren's Teeth,	1 75
“ Bicuspid.		
“ Molars.		
Gum Incisors.		
“ Cuspidates.		
“ Bicuspid.		
“ Molars.		
Teeth in sets, on cards, of all shades and sizes.		

**Gold.**

A superior article of Gold Foil, from No. 4 up to 12, inclusive.		
Gold Plate, 18 and 20 Carats fine.		
“ Solder, 16 and 18 “ “		
“ Spring Stuff, 18 “ “		
“ Wire, round and half round.		
“ Springs.		

**Silver.**

Silver Plate.		
“ Solder.		
“ Powder.		
“ Wire.		
“ Springs.		

**Forceps of the most Improved Patterns.****FIRST QUALITY TOOTH FORCEPS.**

Right and left upper Molar Forceps,	\$2 00
“ “ lower “ “	2 00
Upper and lower Bicuspid “	2 00
“ “ Dentes Sapientia Forceps,	1 75
Straight and curved Root, or Stump	“ 1 75
Narrow beak, for Crowded Teeth,	“ 1 75
Hawk's Bill	“ 1 75

**Turnkeys.**

Ivory, Octagon Handle, Button Fulcrum, Six Hooks,	4 50
Ivory, Round Handle, Button Fulcrum, Six Hooks,	3 50
Ivory, Round Handle, Fox's,	2 50
Ebony, “ “ Button Fulcrum,	2 50
“ “ “ Fox's	2 00
“ “ “ “ with	
Three Hooks,	1 50

**Stump, or Root Extractors.**

Octagon Ivory Handled Screw Hooks, and Elevators,	1 25
Round do. do.	1 00
do. do. do.	75
do. Ebony Handled, without Ferrules	50

**Lancets.**

Two-Bladed Tortoise Shell Pocket Gum Lancets,	2 25
One do. do. do.	1 50
One-Bladed Ivory Handled Pocket Gum Lancets,	1 25
Revolving Lancets,	1 25

# THE DENTAL NEWS LETTER.

Vol. I.

APRIL, 1848.

No. 3.

For the Dental News Letter.

## GUTTA PERCHA.

Experiments with prepared Gutta Percha have fully demonstrated its utility for many purposes in Dentistry.

Some of the uses to which it has already been applied, are taking impressions of the mouth, bands, ligatures and springs for reducing irregularities, in setting pivot teeth, temporary stoppings, handles for small instruments, and for many other purposes.

Its value for taking impressions is greater than might at first be supposed. When the operation has been conducted properly, an impression without defect or alteration by drawing from the teeth may be obtained; the necks of the teeth will appear in the cast of their natural size and shape, which cannot be the case if wax be used. The surface of casts obtained from Gutta Percha moulds, are beautifully smooth and polished.

Some account of the substance may not be uninteresting. It is obtained from immense trees growing in the Islands of Sumatra and Borneo, and is imported in large masses or cakes, mixed with many impurities. Its specific gravity is about 0.98, and contains less Hydrogen than Caoutchouc, the constitution of which is, according to Faraday,

Carbon, 87.2.

Hydrogen, 12.8.

At common temperatures it is exceedingly strong, tough, and slightly elastic, but by being heated it becomes soft and pliable, permitting it to be formed and moulded at pleasure. A number of patents have been granted in England for different applications of it in arts and manufactures.

E. BLAKE, M. D.

We have received a supply of this article for taking impressions and for other purposes.

JONES, WHITE & CO.

For the Dental News Letter.

## A CASE OF POISONING FROM SALIVARY CALCULUS.

BY F. REINSTEIN, DENTIST.

In November, 1845, in mounting some artificial teeth, I received a slight puncture from a piece of gold, in the apex of my left index finger, which bled very little, and was in reality of no importance. Immediately afterwards I was called in to the office to see a lady who had been sent to me by her physician, who considered the affection she labored under, the effect of her teeth. I examined her mouth, and found all her teeth much coated with tartar, some of which were loose, the gums spongy, and several very offensive roots; to extract which; I first removed the tartar; in doing so, my wounded finger came in contact with the tartar, was covered with blood and the offensive humours of the mouth.

In half an hour after the operation, my finger became very painful and began to swell, which, involving the whole hand, extended up to the axilla, the whole becoming much swollen. Poultices were immediately applied and renewed during the night; in the morning, there being no improvement, I had a physician called, who immediately laid open the finger by an incision. Yeast poultices were then applied and continued for four days, during which time the finger continued much swollen and became discolored—mortification having supervened. Leeches were applied from the finger to the axilla. An abscess now formed on the second joint of the finger. The pain during the whole time in the hand and arm was excruciating. Caustic, charcoal, and various other things were applied without relief, until the abscess was opened, then relief followed. Three months elapsed before a cure was effected, and still the finger remained very tender and sensitive.

The narcotics affected the lower extremities only, benumbing them, while the brain was in a highly excited state; indeed, at one time, tetanus seemed inevitable.

Most writers upon Salivary Calculus, declare it to be composed of phosphate of lime, fabrina or cartilage, and animal fat. This I believe to be correct, but, at the same time, contend that there is also poisonous qualities in tartar before it is analyzed, which is lost or destroyed in the analysis, and this it is which vitiates the secretions of the mouth, rendering them acrid and unfit to be taken into the stomach, inflaming the gums and imparting such an unhealthy action to the alveolar process, that the gums become morbidly sensitive, and often discharge fetid matter.

Fungoid growths, ulcerations of the gums and different parts of the mouth, pain in the jaws and ears, neuralgia, facia, ophthalmia, &c., are occasionally produced by the formation of this matter upon the teeth, and it is a most prolific cause of caries.

For the Dental News Letter.

## GALVANIC ACTION.

BY JOHN K. TOWNSEND, M. D.

*Philadelphia.*

I have frequently heard of cases of galvanic action being induced by the union of two metals, employed as fillings for teeth, and of the deplorable consequences following such malpractice ; but until within a few months, no case has come under my personal observation.

The subject, in the instance alluded to, was a lady who called upon me with a request that I would extract the first molaris of the upper jaw ; which, she said, had, during more than a week previously, given her constant and excessive pain. Upon examining the tooth, no adequate cause for this intense suffering was perceptible. There was no decay ; the tooth looked perfectly healthy, and had a small gold plug in the centre of its grinding surface. The gum in the vicinity was in a healthy state, and no sign of abscess was visible.

The palliative remedies which I suggested, with a view of saving so valuable a tooth, were firmly declined by the sufferer, who insisted upon its instant extraction, declaring her determination to suffer no longer. Without a suspicion of the true cause of the difficulty, I removed the tooth, and after the patient left my office, proceeded to examine the filling. What was my surprise on perceiving that the surface only of the cavity was covered with a little gold, beneath which was a large mass of *tin* ! Here, then, was a solution of the mystery ; the union of the two metals had induced galvanic action, and hence the pain.

About a fortnight subsequently, the lady called upon me again, complaining of violent pain in the corresponding molaris on the other side of the same jaw. Upon examination this tooth also appeared healthy, and had, as on the previous instance, an *apparent* gold filling in its centre.

Learning from the patient that both teeth had been filled at the same time, by the same dentist, about three years before, I removed the plug ; and, as I suspected, the same plan had been pursued ; a filling of tin, with a mere covering of gold. When the lady returned, according to my advice, at the expiration of three days, the tooth was perfectly free from pain. I plugged it with gold, and requested her to visit me again if she suffered any inconvenience. Two months have since elapsed, and no tidings of my patient. I therefore conclude that a radical cure has been effected ; my operation, as I think, proving conclusively, the correctness of my first impression.

For the Dental News Letter.

## CIRCULAR.

### TO THE MEMBERS OF THE DENTAL PROFESSION :

The undersigned take great pleasure in announcing to the members of the dental profession in this country, that after a long series of experiments, they have at last discovered a *compound material* for stopping carious teeth, possessing such peculiar merit as, in their opinion, entitles it to the candid attention of every dental surgeon in the land.

The article in question has been so long, and so ardently sought for, both in this country and in Europe, by men of every grade in the profession, that many minds have become weary, and have abandoned the fruitless search.

But this only proves how *extremely desirable* such a thing is, and how *very valuable* it would be, if once attained.

The difficulties, however, have been such, and the requisites so various, and important, in order to its practicability, that many eminent minds have come to the conclusion that the thing is altogether unattainable.

These considerations alone are sufficient to restrain us within the *strictest* limits of *truth*, and *fact*, and guard us against all *presumption* in setting forth our claims to the discovery under consideration.

It is not necessary, or expedient, that we here detail the successive steps by which this thing has been accomplished. Suffice it to say, that it has not been done without *labor*, and *anxiety*, and an ardent desire to achieve that which must prove extensively useful, not merely to the members of the dental profession, but to the world at large.

With these few preliminary remarks, we proceed to mention some of its *peculiar characteristics* :—

1st. It is perfectly harmless, both as it respects the teeth and the constitutional health. This will be so evident to every one, when the materials are known, as to admit of no controversy.

2d. It is very easy of application, being introduced into a cavity in a plastic state, and hardening as soon as it is packed.

3d. It can be applied with ease to the merest shells of teeth, and its adhesive property is such as to be retained without difficulty.

4th. It can be made so near the color of the teeth that an unpracticed eye can scarcely detect any stopping at all.

5th. It is altogether *impermeable* to the fluids of the mouth, and, so far as the strongest tests have enabled us to judge, *perfectly insoluble*.

6th. It is comparatively a non-conductor of heat; and, in this respect, possesses a decided advantage over metals of every description. Hot or cold drinks do not effect even the most sensitive teeth, when perfectly stopped with this material.

7th. It does not *shrink* when placed into a tooth, so as to admit either moisture or air.

8th. Its specific gravity is less than that of metals, approaching very nearly the specific gravity of the tooth itself.

9th. Its *extreme toughness*, and wonderful tenacity, are truly astonishing; and although not absolutely hard like enamel, yet, after numerous experiments even on the grinding surfaces of teeth, we cannot detect the slightest wear or depreciation.

It has been subjected, (under our own eye,) to the *severest chemical tests*, with such results, as to deepen the conviction of its *durability* and *permanence* as a stopping for carious teeth.

It has been examined by, and its materials made known to, several of the most distinguished dentists in this country; and, so far as they have been enabled to judge, from experiments submitted to their examination, they have unhesitatingly given their opinion, not only that the material is *perfectly innoxious*, and *safe*, but that, in reasoning from its nature, *they could not see why it should not stand against the fluids of the mouth*.

It is, perhaps, unnecessary to enumerate all the purposes to which it can be advantageously applied, as the experience and necessities of every dental surgeon will readily suggest to his own mind the different and peculiar modes of its application.

It is believed, that in *every case* where *amalgams* are thought to be necessary, this compound can be used with *greater satisfaction* and *certainly, without the slightest injury*.

For stopping the *temporary teeth* of children, and thus preserving them against a numerous train of evils, we know of nothing which for *convenience, safety*, and the ease with which it can be used, that will compare with this material. Every dentist knows thousands of *deciduous* teeth are sacrificed every year, for the want of some such material to stop them.

Comparatively few are able to incur the expense of gold stoppings in such cases; and among those who are able, many are *unwilling*. But if parents are found both *able* and *willing*, the children are *too timid* and *too young* to submit to the necessary manipulation.

Here, then, we offer to the profession that which is confessedly a *desideratum*, and feel the most perfect confidence that it will supersede the use of every other article for this purpose.

Where teeth are worn away by clasps, and artificial sets are dependant upon them, it cannot fail to answer a most valuable purpose. We have used it in such cases with great satisfaction.

We speak *within the limits of our own experience* when we say that it is *very valuable* for temporary purposes. Yet we bear a deep conviction that time will prove its great utility in all cases where any stopping can be made available.

But in order that *no one* may cavil, from disappointment, we offer it to the profession *on the ground of its great utility and convenience*,



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But in order that *no one* may cavil, from disappointment, we offer it to the profession *on the ground of its great utility and convenience*,

as a temporary stopping, leaving it to time alone to determine its permanent value.

Such then is our discovery, and such our convictions in regard to it. And we are firmly persuaded, that in offering it to the profession, we are conferring upon them, and through them, upon suffering humanity, an *incalculable blessing*.

But while doing this, we are frank enough to confess that we desire to benefit ourselves at the same time, by securing a *moderate pecuniary compensation*. And having taken measures some months ago to *secure our right* to this invention, we deem it proper to state, that whatever claim the profession may have upon one of the proprietors, that claim *does not hold with respect to the other*, inasmuch as he is in *no way* connected with the profession, save by a train of *accidental circumstances* in this one respect. And it would be as *unjust*, as it would be *unreasonable*, for one individual so to use *his own*, as to violate the *equal and undoubted right of another*.

But we *pledge* ourselves, that as soon as we are met by a *generous disposition* on the part of the dental profession in this country, we are *willing, nay desirous*, to relinquish our claim in this regard, and throw the *whole matter before them*.

With respect to terms, we have taken counsel of some of the most judicious and worthy members of the profession, and, after mature reflection, we have decided upon the following

#### CONDITIONS OF SALE.

Any person transmitting to our agents the sum of fifteen dollars, shall receive a package containing a sufficient amount of the material, neatly prepared, for *one hundred large size stoppings*, with *full directions how to use it*; and it shall be supplied to him *afterward* for the sum of *ten dollars*, for one hundred stoppings.

The article will not be furnished in *any quantity less*, nor for a *price less*, than as above specified.

A. HILL, D.D.S.,  
SAMUEL G. BLACKMAN.

Norwalk, Ct., April 16th, 1848.

N. B.—Messrs. Jones, White & Co. are sole agents for the sale of this compound, known as "*Hill's Stopping*."

A. HILL, D.D.S.,  
SAMUEL G. BLACKMAN.

MESSRS. HILL & BLACKMAN:—*Gentlemen*:—After having taken my own time to investigate in my own way the subject intrusted to my keeping by you, I now hasten to give the conclusions arrived at.

"*Hill's Stoppings*," for the teeth, possesses qualities far superior to any other soft filling material now used in dental practice.

It can be easily adapted to all the variety of cavities that occur in practice—is perfectly flexible when in a plastic state, and is as inflexible and insoluble a few moments after. It is beyond a doubt innocent in its nature, and could not by any possible means harm the teeth or constitution. It is perfectly impervious to the fluids; and is so far indistructable as to be proof against the acidulous or salinous properties of the saliva. In short, it will, without doubt, answer the full expectations of the inventors; and so far as they recommend it for dental purposes, will not disappoint the dental profession who adopt its use. The inventors do not expect “Hill’s Stoppings” to take the place of gold. Pure gold in my estimation will always supersede every other material for filling the teeth with.

MARTIN K. BRIDGES, D.D.S.

Brooklyn, April 15th, 1848.

## REPORT

*Of the principal facts connected with a fatal case of Chloroform Inhalation, which occurred in Cincinnati, on the 23d of February, 1848.*

GENERAL HISTORY.—The subject of the following report, Mrs. Martha G. Simmons, was at the time of her decease thirty-five years and ten months old. Her husband states that she generally enjoyed excellent health; sometimes she was “nervous,” and suffered occasionally with neuralgic pains about the face, and pain in the ear, apparently arising from decayed teeth. She also suffered at times from “sick headache.” She was the mother of six children, five of whom are still living; her last accouchement occurred eight weeks previous to her death. Nothing unusual occurred, either at the time of parturition or subsequently; her health remained good, and the ordinary quantity of milk was secreted.

On the 23d of February, she dined at a quarter past 12 o’clock; and after dinner walked to a dentist’s, a distance of about three-fourths of a mile, for the purpose of having some roots of teeth extracted. She arrived at the dentist’s 15 minutes before 3 o’clock, appeared slightly flushed from the exercise of walking, but exhibited no alarm on account of inhaling the chloroform.

At 3 o’clock, 16 minutes after her arrival, Mrs. S. commenced inhaling chloroform. Mrs. Pearson and Mrs. Cross, two female friends were present, and report the following as the events which occurred: The respiratory movements appeared to be free—chest heaving. While inhaling, *the face became pale*. At the expiration of about *one minute*, the instruments were applied, and four roots of teeth extracted. The patient groaned, and manifested what they regarded as evidence of pain, while the teeth were being extracted, although she did not speak, or exhibit any other sign of consciousness. As the last root came out, which was about two minutes from the beginning of the inhalation, patient’s head turned to one side, arms became slightly rigid, body drawn somewhat backwards, with a tendency to slide from the operating chair. At this instant, Mrs. Pearson states that she placed her finger upon the patient’s pulse, observed that it was feeble and immediately ceased to beat; respiration also ceased *about* the same time. The face, which was previously pale, now became livid, as also did the finger nails, the lower jaw dropped, and the tongue projected a little at one corner of the mouth, and the arms were perfectly relaxed. The females regarded her as being then quite dead. Efforts were made to resuscitate the patient—ammonia was applied to the nostrils, cold water dashed in the face, mustard, brandy, &c., applied. The patient was now removed from the operating chair and laid on a sofa; but she did not breathe, nor exhibit any sign of life, after being placed in the recumbent position.

# THE DENTAL NEWS LETTER.

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APRIL, 1848.

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We delayed the issue of this number for the purpose of enabling Dr. Hill to bring before the profession his new article for filling teeth, we trust it will prove to be all that is claimed for it, not only by him, but by others who have given it a trial.

We have just received a supply of the article, and are ready to fill all orders with despatch.

---

We have received a "Report of the Trustees of the Massachusetts General Hospital, with a history of the Ether discovery, and Dr. Morton's Memoir to the French Academy," edited by R. H. Dana, Jr.

This is a very lengthy paper, being a collection of all the arguments and documents which go towards proving Dr. Morton's claim to the discovery of the application of Ether to the suspension of pain.

Who is the discoverer, is a subject which is of but little interest to the profession, and as the other principal claimant is deceased, it leaves but a one-sided argument; still we must give the Doctor credit, at least, for considerable information and practical experience on the subject, much of which is certainly of his own discovery.

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## PENNA. ASSOCIATION OF DENTAL SURGEONS.

A meeting of the above society was held on the first Tuesday in April, but as we were not present—and in the absence of a report, we are unable to say what business was transacted, but presume that, as usual, many interesting subjects were discussed, and much information derived by the members.

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## PORCELAIN TEETH.

Some months ago we had the pleasure of making the acquaintance of Dr. Geo. E. Hayes, of Buffalo, N. Y., at which time we had a lengthy conversation with him, on the manufacture of artificial teeth, and found him quite as enthusiastic on this subject as ourselves. He generously communicated to us his receipts and process of manufacture. Since then he has sent us a few teeth as samples of such as he makes for his own practice, some of which approach as near in appearance to the enamel of the human teeth, as any we have ever seen, for all of which he has our warmest thanks.

We publish this in justice to Dr. Hayes for the improvement he has made in this important branch of Dentistry. We would add

that any suggestions, or, the results of any experiments of importance that may have been made in the manufacture of artificial teeth, will be thankfully received, pledging ourselves to make every exertion to excel in the manufacture both as regards beauty and utility.

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There was an application before our Legislature for a charter for a Dental College in this city (Philadelphia.) It was referred to the committee on charters, who reported the bill to the House, with the recommendation that it be negatived, which, of course, killed it. So we are not to have a college here.

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### TRANSFER PLATE.

We have received a new article, which is used extensively in the East, for taking impressions, and which combines many advantages over the old kind, as it can be lengthened or shortened by means of a screw, thus giving any length required. It has also several shifting planes which gives any degree of height desired. With it the wax is forced against the roof of the mouth; this in very deep mouths is a desideratum.

They combine, we think, all that is requisite. There are two sizes, with which an impression of any ordinary mouths can be accurately taken.

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We have made an arrangement with the inventor of the "Patent Lever Joint Springs," by which we will be enabled to supply the profession at a less cost than formerly.

They are highly approved of by those who have used them.

JONES, WHITE & CO.

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### CHLOROFORM.

We had prepared a long article on this subject, detailing each case that resulted fatally, so far as known, and quoting liberally from published matter, as well as verbal opinions. From all of which we thought the reader might form his conclusions with perfect safety; but in consequence of a press of other matter, which perhaps is of more importance at this time, we have not room for it. We, however, make a few extracts from a published report of the case of Mrs. Simmons, of Cincinnati:—

*Heart and large Blood-Vessels.*—Pericardium contained six drachms of bloody serum. Heart flaccid, *and all its cavities entirely empty*; inner surface of both ventricles and auricles deeply stained. Aorta and pulmonary artery empty; no blood in the cava within the chest, and a very small quantity in the part which lies within the abdomen; indeed, so small was the amount that it could not be appreciated until the vessel was opened.

**GENERAL REMARKS.**—In regard to the general effects of chloroform, it may be briefly stated, that it acts primarily on the brain

and spinal cord. Its general action is that of a sedative ; hence the functions of the cerebrum are speedily suspended, and the patient becomes *unconscious* ; carried beyond this degree, the spinal cord becomes involved, impairing, to a greater or lesser extent, the excito-motory function. If the action becomes very intense, the reflex function is impaired and finally suspended ; the medulla oblongata becomes involved, and, consequently, the respiratory function is impeded and finally arrested.

The effects of chloroform differ very greatly in different cases. In the Edinburgh experiments, the same quantity produced in one case tetanic spasms, in another coma, and in a third involuntary evacuation of the bladder. The quantity and mode of exhibition will also materially modify the results ; according to the Edinburgh experiments  $\S j$  is the medium quantity required to produce complete insensibility ; and the time varies from 60 to 80 seconds. Dr. Simpson, it will be seen, advises its *rapid* exhibition ; he is of opinion that when administered slowly, more excitement of the brain ensues, and consequently more imminent danger. This, however, seems to be a questionable doctrine ; and we are decidedly of opinion, that the safest mode of administration is to introduce chloroform vapor *slowly and gradually*.

What quantity, it may be asked, will prove fatal ? This cannot readily be determined. But one fatal case has thus far been reported, which is the case above detailed ; and the experiments on animals have not fully settled that point. In the Edinburgh experiments, and also those of Dr. Lawson,  $\S iv$  were administered ; but it may well be a question whether a less quantity would not have been sufficient finally to destroy life.

Finally, the following general rules and conclusions seem warranted by facts and principles.

1. The danger arising from the inhalation of chloroform depends very greatly on the *quantity* administered and the *rapidity* with which it is introduced.

2. Some constitutions are vastly more susceptible to its influence than others ; hence the necessity for caution.

3. It should be the object of the operator merely to suspend the cerebral function, and not to involve too deeply the excito-motory system.

4. Small doses, (say thirty drops,) will generally be sufficient for ordinary operations, such as extracting teeth ; and in such doses, but little if any danger is to be apprehended, except in very unfavorable cases.

5. Large doses are often somewhat hazardous ; small ones much less so.

6. In skilful hands it promises valuable results ; in the hands of the ignorant it is a dangerous agent.

7. In addition to its use in surgery and obstetrics, chloroform promises valuable results in tetanus, delirium tremens, hydrophobia, and kindred affections.



8. The effects of chloroform, so far as known, are very nearly similar to those of ether. The former acts more *rapidly* than the latter, and on that account *may be* more hazardous.

9. The *safest* mode of administering chloroform is by means of a handkerchief or napkin.

10. It becomes a dangerous agent in persons predisposed to apoplexy, in cases of great debility, in diseases of the lungs—inflammation, tubercle—and in some peculiar conditions of the nervous system which are inexplicable.

11. Several facts seem to indicate, that the *recumbent* posture is more favorable than the erect.

12. No particular danger seems to arise from even the *protracted* administration of chloroform; thus patients are kept under its effects for hours in succession.

13. The *pulse* should be carefully watched; if it becomes feeble, the inhalation should be for a time suspended, and so on during its administration. L.

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We take the following from a number of testimonials, which we have recently received:—

COLUMBUS, OHIO, *March 16th, 1848.*

When in New York, in October last, I purchased three ozs. of your gold foil, numbers six and eight; since which time I have used it up in my business; and I take great pleasure in saying, that if you will always furnish me such an article, I shall not desire any other kind, as I have never used or seen a better article, and rarely half as good.

I also selected one set of your gum teeth, as a specimen. Since my return, having a whole set of a size suited to them, I mounted them, and must say that I was much pleased with them, and they have been greatly admired by all who have seen them. I like the way they are fitted or jointed on their sides, and also the grinding surfaces of the molars and bicuspid, as teeth for whole sets are always too pointed to permit the rotation of the mouth freely without first being ground, which makes them unsightly, and too smooth.

WM. WILTSHIRE RILEY.

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I am now prepared, after making a full and complete trial in every way of the teeth of your fabrication, to pronounce them superior by far to any others that I have used or seen at any time during a practice of no small extent for ten years past; and I must say, that I consider the profession peculiarly fortunate in being able to obtain artificial teeth in every way possessing such admirable qualities for supplying the loss to their patients of the natural organs.

W. A. PALMER, *Poughkeepsie.*

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W. A. PALMER, *Poughkeepsie.*

ASAHEL JONES.

SAMUEL STOCKTON WHITE.

J. R. McCURDY.

**JONES, WHITE & Co.**

MANUFACTURERS OF

**PORCELAIN TEETH,****GOLD & TIN FOIL, PLATE, SPRINGS,****PLATINA PLATE & WIRE, EMERY WHEELS, &c. &c.****No. 263 Broadway, (opposite the Park) New York;  
And No. 273 Race St. (one door above Eighth,) Phila.**

J. W. & Co. have, at the above named places, a full assortment of PLATE, PIVOT, MOLAR, BICUSPID, and GUM TEETH; GOLD and TIN FOIL, EMERY WHEELS and SLABS, DENTAL FILES, INSTRUMENTS, CHAIRS, &c.; where we would solicit the patronage of the Profession, pledging ourselves to use our utmost endeavors to give satisfaction, as particular attention will be paid to select Teeth according to order.

All orders, *enclosing the cash*, will be promptly and carefully attended to.

N. B. Orders for Instruments will be executed with care, at manufacturers' prices.

**DENTAL CATALOGUE.****Teeth.**

Plate Incisors.

" Cuspidates.

" Bicuspids.

" Molars.

Pivot Incisors.

" Cuspidates.

" Bicuspids.

" Molars.

Gum Incisors.

" Cuspidates.

" Bicuspids.

" Molars.

Teeth in sets, on cards, of all shades and sizes.

**Gold.**

A superior article of Gold Foil, from No. 4 up to 12, inclusive.

Gold Plate, 18 Carats fine, per dwt. 90 cts.

" Solder, 14 &amp; 18 " " 75 &amp; 90 "

" Spring Stuff, 18 " " 90 "

" Wire, round and half rd. " 90 "

" Spiral Springs, 18 Carat " 1 00

**Silver.**

Silver Plate.

" Solder.

" Powder.

" Wire.

" Springs, per pair 50 cts.

**Forceps of the most Improved Patterns.**

FIRST QUALITY TOOTH FORCEPS.

Right and left upper Molar Forceps, \$2 00

" " lower " " 2 00

Upper and lower Bicuspid " 2 00

" " Dentes Sapientiae Forceps, 1 75

Straight and curved Root, or Stump " 1 75

Narrow Beak, for Crowded Teeth, " 1 75

Hawk's bill, " 1 75

Excising, straight and curved Forceps, 1 75

Separating, or splitting Roots " 1 75

Hullihen's Screw Forceps, for extracting Roots, " " " 2 00

Small right and left Forceps, for Children's Teeth, 1 75

**SECOND QUALITY TOOTH FORCEPS.**

Right and left upper Molar Forceps, \$1 50

" " lower " " 1 50

Upper and lower Bicuspid, " 1 50

" " Dentes Sapientiae " 1 50

Straight and curved Stump " 1 25

Hawk's Bill, " 1 25

Small Forceps, 1 00

**Turnkeys.**

Various patterns, at various prices.

**Stump, or Root Extractors.**

Various patterns, at various prices.

**Lancets.**

Every variety, at low prices.

**Plugging Instruments.**

Largest size Pearl Handled Instruments, Gold Ferrules, 3 60

Second do. 2 00

Largest size Pearl Handled Silver Ferrules, 2 00

Second " " " " 1 75

Largest " Ivory " " " 1 00

Second " " " " " 75

Third " " " " " 50

Small Ivory Plain Silver Ferrules, 35

Largest size Ebony " " 75

Second " " " " 35

**Scaling Instruments**

Pearl Handled Instruments, Gold Ferrules, 2 00

" " " Silver, " 1 75

# THE DENTAL NEWS LETTER.

Vol. I.

JULY, 1848.

No. 4.

The following essay was read before the Pennsylvania Society of Dental Surgeons at their last stated meeting, April 4, 1848.—  
ED.

For the Dental News Letter.

## ON DECIDUOUS TEETH.

*Mr. President and Fellow-Members :—*

I feel proud when I think that you appointed me, at our last stated meeting, to prepare a dissertation upon a subject relative to our profession, not on account of the pleasure of doing it, (a great pleasure it would be, were I able to do it with details of a more interesting character,) but on account of a commencement, let the effort be ever so feeble, for I feel satisfied that your kind indulgence will make all the allowance that is requisite. If we do all we can, no more can be asked, and which will, I sincerely hope, in time, with the combined efforts of us all, by perseverance and diligence, elevate the Pennsylvania Association of Dental Surgeons far higher than any of us at present anticipate.

The subject which I have thought proper to dwell upon this evening, viz., the importance of filling the temporary teeth, and, in order that you may more fully understand my views, I will endeavor to make a few remarks upon their preservation and their treatment in general. If we examine those little organs when they first make their appearance, we will find that they are generally smooth and glossy, and that they are most always more free from imperfections and indentations than those which take their place ; so much so, that I think I can say, with perfect safety, that, with proper care and attention, they would be less prone to decay, and would last in a sound and healthy state twice the period allotted to them by nature, were it required : for we find them generally more regular, and not only that, but their sides do not approximate each other as the permanent do, but to the contrary. For, at the early age of two or three, we can perceive that the maxillary bones have begun to elongate, and that the alveolar arch is gradually increasing, which is a wise provision of nature, as the permanent teeth take up much more room, owing both to their number and size ; but if three or four are extracted, two or three years before the eruptions of the permanent, the processes will undoubtedly contract, which goes to show how important it is that

the temporary teeth should be preserved, and save all the pains and diseases that their neglect is liable to cause, until their removal is called for by nature. Yet, notwithstanding what has been said in their favor, we are called upon almost every day to extract one, that a little sufferer may find relief, either one of the superior incisors or second molars, and, I think, the most important; for, if we extract the temporary molars before the first permanent have made their appearance, the cuspidati are sure to be excluded, more or less, from the circle, which is often the cause of great irregularity, but which could be prevented by taking out one or more of the bicuspidi in time. But still this is not my argument, for if we are to neglect the temporary teeth because there is a remedy for irregularity by reducing their number, we do what nature never intended. To be sure, there are cases in which we would be obliged to extract some of the permanent, and it is very important that it should be done, but, at the same time, if we look at the cause of this requirement, we will find that it is caused, in a large majority of cases, by the removal of the temporary teeth too soon. When a temporary tooth has become, in a measure, a foreign substance, owing to the destruction of its pulp, and is the cause of any irritation, it should be extracted at once, for I would consider it wrong to let a tooth remain in the mouth that is likely to cause any inflammation whatever, and I would also consider it wrong to destroy the pulp of a temporary tooth with arsenious acid, or any thing that is liable to increase inflammation. I would sooner extract the tooth at once, without hesitation, for it is very seldom that we find the pulp of a temporary tooth exposed without being very much inflamed, (and, in fact, often before caries has reached the pulp,) in which case the child would suffer at least two or three hours the most violent pain, and for what? We cannot consider it a radical cure, or the removal of an evil that will not return, for we may be obliged to extract the tooth in a very short time; if the inflammation continues at the apex of the fang or fangs, (which it does in almost every case, or, at least, in two-thirds,) nature will make an effort herself for the expulsion of the evil, or the removal of the cause. Does this not show us at once that all we can do, or should do, for those little organs when in distress, is to alleviate them by the application of palliatives? If a temporary molar can be retained in this way after caries has reached the pulp, well and good, for it will gradually perish, and if nothing remains by this time but the fangs, they will be of use as long as they do not cause any irritation, until their extraction is called for by the appearance of the permanent, as no absorption of the fangs takes place after the destruction of the pulp; thus we see again the importance of preserving them in a sound and healthy state by filling them with gold as soon as carious, which can be done with little or no pain, if done in time, but which should never be done after the destruction of the pulp, or

the least inflammation is suspected, even if the caries has not reached the pulp, for, if we were to fill a tooth in this state, we would be sure to increase the evil, and would be compelled to extract the tooth in a very short time. But this state of the pulp can be easily detected by the aid of a probe, for the least pressure applied at the top of the cavity will cause the child to flinch, but if no pain is caused, and the child has complained of much tooth-ache, we may judge at once that suppuration has taken place, and all that it wants is vent. I have, in a number of cases, given relief in two or three minutes by making an opening into the pulp cavity that the pus might ooze out, but which is not worth while to do, if the tooth has become loose and the gums inflamed, for it is then too late, and the only sure remedy is the extraction of the tooth. Filling the temporary teeth with gold is a subject which I feel much interested in, and which I call your particular attention to, that it may fall into an abler hand, for I know that much good can be done and will be done, (when parents will have their children's teeth attended to as they well deserve,) both directly and indirectly, for how often do we find, upon examining children's teeth, that the first molars (permanent) have made their appearance and have decayed nearly half away, when the parents have not the remotest idea of any thing of the kind, and even when they have, they thought to be sure that they were all temporary teeth, and that it made no difference whatever, as they would soon lose them. But would this be the case if the first teeth were appreciated as they ought to be, and children taught from their infancy up to take care of their teeth, and as soon as a cavity was perceived to have it filled? This would bring them under our inspection at once, and, in time, we could arrest the progress of the caries and assist nature, when it could be done as it ought to be. Almost every child will submit, willingly, (and sometimes think it quite a treat,) to the filling of a tooth if they have not had any extracted; but they soon lose all their courage by the time they have had several taken out. We know well that this must be done, when they are neglected, to give relief, for they are the cause of much suffering, and would often terminate with alveolar abscesses, exfoliation, and sometimes even death, when allowed to remain in. Much more might be said, if time would permit, of the evils that are liable to result by neglecting them, and why they should be filled as soon as carious, but I trust that enough has been said to arrest your attention.

Some may ask, how are these evils to be prevented, for people will let their children neglect their teeth? I will answer how they can be, for I consider that it lays wholly and solely with dental practitioners, in the majority of cases, to abate these great evils, which prevail to such an extent at the present time, with all the progress that dentistry has made of late years. To be sure, the task is a difficult one, to alter both the habits and the

opinions of our patients, but, at the same time, it is our duty to do so, (for our calling is good,) and, if there is an evil, to nip it in the bud. For we cannot expect our patients, or the community at large, who do not make it their study, to tell us what to do, or what ought to be done. It requires a move on our part, to impress upon their minds the importance of filling the temporary teeth as soon as carious, and the importance of children paying proper attention to them; that the brush, silk, and dentifrice are indispensable, not only for the preservation of the first teeth, but the second, for they do not get them all at once, but at intervals, which shows the importance of cultivating a habit while young. I would beg leave to say yet, in conclusion, in regard to filling the temporary teeth, that gold is the only substance that ought to be used, for various reasons, and always number four, which packs more solid with less pressure than six or eight, with a fine plugger.

All of which is respectfully submitted, by your fellow member,  
SAM'L L. MINTZER.

---

For the Dental News Letter.

### POPULAR MISTAKES.

"Doctor," says the old lady, "is it true that a man has one less ribs than a woman?" "Of course," says the doctor.

Physicians may laugh, but there are some things in the practice of Dentistry well calculated to provoke a smile, and, as one of the profession, I would suggest to your instrument-maker the idea of making drills and screw taps for the purpose of inserting teeth by screwing them into the "*jaw-bone*." I am sure that many patients would not be surprised at the sight of them, or an attempt at application, especially if the operator took the precaution to hold a cork on his hand on the top of the head, to save wounding his hand when the instrument passes through.

Seriously, however, no dentist of much practice can fail to be surprised at the idea the mass have of the anatomy of a tooth.

Take but one instance. Ninety-nine out of every hundred patients (including some modern-made M. D.'s) will say, when troubled with toothache, "Doctor, the NERVE of my tooth is exposed, *and* it aches." On examination you will find a well developed molar or lower canine, having a small necrosed groove or caries at the neck just at the junction of the enamel of the crown and the periosteum of the fang of not more than half a line in depth. You say, "why, madam, the nerve is not exposed; it is merely the bone of the tooth."

If the dentist stops there, ten chances to one he is not set down as a fool or charlatan, for "can't she feel the nerve?" "can't she touch it with a pin?" "oh, it's the nerve certain!"

In another case, a patient comes with pain, and, on examination,

you find the merest shell of a fang whose crown departed years ago, and, of course, the nerve is gone from exposure to the air, (that always will cause its death,) and still it must be the *nerve* that produces the pain, and ten chances to one if you are not asked to put something in to destroy the nerve. I do not hesitate to say, that not one case of toothache out of ten is caused by the exposure of the nerve. Inflammation of the bony structure\* and the internal and external periosteum of the fang being the main causes.

C.

### ANÆSTHETIC AGENTS.

*Mode of Administering Chloroform.*—Prof. Simpson states that he believes, in surgery the symptom most to be relied upon as indicating a thoroughly anæsthetic state, was slowness of respiration, or a degree of snoring, or stertorous breathing. After the appearance of this symptom, it is only needful to continue the inhalations from time to time, by intermissions; and, by repeated applications of the handkerchief, the patient ought to be kept in the same sopor during the whole of the operation. In midwifery, Dr. S. believed that this deep degree of anæsthesia was, in ordinary circumstances, not required. He had found that, when administered so as to cause stertorous breathing, the uterine contractions generally ceased, and did not return till the effect had, in some degree, passed off. He had found, therefore, that the chloroform given in a surgical dose was very useful whenever he wished to stop the uterine contractions, as in cases where turning was necessary, and many other obstetric operations. In cases of natural labor, he generally began with a large dose of chloroform, so as to bring the woman at once completely under its influence. This mode of proceeding prevents the chance of any excitement; and, although it occasionally may stop the pains for a few minutes, especially if the labor is still in an early stage, yet the contractions recur as soon as the deeper state wears off, which it usually does in two or three minutes. The depth of the sopor is allowed to diminish by merely withholding the handkerchief till a pain comes on; and then the anæsthetic state is kept up by its reapplications, for two or three inspirations every four or five minutes; or, what is better, with each succeeding pain. The patient should be kept unconscious, but not deeply so, till the head was passing the vulva, when a deeper anæsthesia was required.—*Proceedings of Edinburgh Obstetrical Society, in Monthly J. and R. Med. Sci.* April, 1848.

\* I do not use the terms bone and periosteum according to the common anatomical meaning, for the so-called bone of the tooth does not conform to all the laws of formation, and physiologically is of quite a different structure. Neither is the internal membrane lining the canal in the centre of the fang, or the external capsule or membrane covering the fang, perfectly analogous to periosteum covering the bones of the body. They are terms used for mere convenience sake, but admit of much argument.



*Use of Chloroform in Tetanus.*—Mr. R. L. Baker (*Prov. Med. and Surg. Journ.*, May 31) administered chloroform in a case of tetanus supervening on the fifth day after an injury of a finger, in which the first phalanx was torn off. The spasms were relaxed under the effects of the remedy, which was kept up for three quarters of an hour. The patient continued to improve for eight days, at the end of which, as there was a threatening of return of the tetanic symptoms, Mr. B. amputated the finger, and the patient at the date of the report was rapidly recovering.

Dr. C. A. Worthington of Lowestoft, relates (*Prov. Med. and Surg. Journ.*, April 19) a case of acute traumatic tetanus in a boy 17 years of age, in which the chloroform was administered with striking relief. But the spasms returned and the case terminated fatally, though the remedy was industriously persevered in.

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*Chloroform in Neuralgia.*—Mr. Sibson relates (*Lond. Med. Gaz.*, March 31, 1848) six cases of facial neuralgia in which he administered chloroform. In five, pain speedily gave way, but in two unpleasant effects were produced. In one, sickness, giddiness, and some headache; in the other there was great aggravation of headache, deafness, increased cough, &c.

Mr. Moffit has also used it (*Lond. Med. Gaz.*) twice in a case of severe neuralgia of the neck, and, on both occasions, it brought on severe hysterical fits and vomiting to a great degree, which made it necessary to desist. The pain was not in the least relieved, and the patient felt worse in every respect for several days.

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*Physiological Action of Chloroform*—M. Amussat (*Comptes Rendus*, 29th Nov. 1847) is of opinion that the insensibility or anæsthesia produced by the inhalation of ether, is due to an alteration in the qualities of the arterial blood, and that the degree of insensibility is in direct ratio to the extent of this alteration. In the details of the present series of experiments, he states that on immersing the beak of a pigeon in a vessel containing chloroform, the bird fell down in 55 seconds, and became insensible. On withdrawing the apparatus it speedily recovered, and in two minutes flew away. In another experiment, in which Simpson's apparatus was used, a pigeon became insensible in one minute, but was immediately restored on holding a flask of ammonia under its bill. On wrapping a cloth soaked in chloroform around a rabbit's mouth and nose, the animal became insensible in three minutes. In another similar experiment, insensibility was induced in two minutes. In a third experiment, in which Simpson's apparatus was employed, insensibility resulted also in two minutes; the animal, indeed, was supposed to be dead, but the application of ammonia to its nose speedily restored it. In another experiment, the rabbit's head was placed in a glass vessel containing about 16 grains of chloroform at the bottom; free access of air between



the sides of the glass and the animal's head was thus obtained. In two minutes the animal sank down, and insensibility speedily followed. On repeating this experiment with a double quantity of ether instead of chloroform, the animal sank down in three minutes; but the effects were much less powerful than with chloroform. Dogs became insensible in two minutes by inhaling chloroform from a sponge. In one experiment with a dog, whose crural vessels and nerves were laid bare, the color of the arterial blood became dark, like that of the vein, after one minute's inhalation; and insensibility then ensued. On stopping the inhalation, the vessels resumed their ordinary color. In another experiment of the same kind, the arterial blood assumed a brown color in  $2\frac{1}{2}$  minutes.

The observations which M. Amussat makes on cases in which chloroform was employed in the human subject are interesting only in so far as they demonstrate the more speedy production of complete insensibility by this fluid than in ether; and in showing that chloroform produces the same effect as ether on arterial blood, converting its color and aspect into those of venous blood. He has never observed any injurious consequences to result from the employment of chloroform.

From experiments performed upon himself and upon many other individuals, M. Gerdy finds:—

1. That chloroform, like ether, produces cough; but that its employment is in this respect tolerated better than ether.

2. Applied to the nose and mouth by means of a sponge, it sometimes cauterizes the parts it touches; but this appears to depend on the chloroform being badly prepared. In such cases an inhaling apparatus should be employed instead of a sponge dipped in the liquid.

3. The sugary taste which it produces is most perceived towards the isthmus faucium, the base of the tongue, the velum and anterior arches of the palate, and in the pharynx. That the taste is perceived in the pharynx, may be proved by inhaling the vapour only through the nose. The fact is physiologically interesting, in showing that the pharynx possesses the faculty of perceiving the flavor of chloroform when reduced to vapor. And it is so much the more remarkable, inasmuch as in its liquid state chloroform causes so much irritation when applied to the tongue that this organ is unable to perceive its taste.

4. Chloroform causes an increased flow of saliva, though in a less degree than ether.

5. Chloroform more readily produces an inclination to vomit than ether; the latter is, therefore, preferred by some individuals.

6. The numbness caused by chloroform often ensues more speedily than that produced by ether, though not invariably.

M. Jobert has furnished the details of cases in which this new

anæsthetic agent was employed with complete success. In one case amputation was performed at the thigh for diseased knee-joint. Before commencing inhalation the pulse was 104, but when complete insensibility ensued (which it did in 1 minute 30 seconds) it fell to 72. No cough was excited by the inhalation, and respiration continued unimpeded during the continuance of the insensibility. The operation was performed without the least consciousness of pain, and, at the conclusion of it, the patient roused up suddenly as from a profound sleep. The blood had lost somewhat of its ordinary bright tint, but was not so deeply colored as is observed to be the case after the inhalation of ether. In another case the operation of cataract by depression was performed with equally satisfactory results; complete insensibility and unconsciousness having been induced. The other two cases, which were quite successful, contain nothing else worthy of note.

In an extract from a Memoir on the employment of Chloroform, M. Sedillott mentions the effects produced by this fluid on three of his pupils and one of his colleagues. In one, all power of movement was lost in 1 minute 30 seconds; in another, in 2 minutes; in the third, in 5 minutes; and, in the fourth, in 6 minutes. In each, consciousness of what was passing around was retained. They also perceived when they were touched, but it seemed to them as if they were enveloped in a kind of atmosphere of insensibility towards pain. The power of motion and free exercise of the mind was not regained so speedily as after the inhalation of ether; the period being from 15 to 20 minutes in two of the individuals.

In a subsequent memoir, M. Sedillot remarks that more extended observations prove still more satisfactorily that chloroform, as Dr. Simpson says, possesses great advantages over ether, and will, most probably, quite replace it. The effects are usually more speedy in their onset, and more persistent in their duration. It is also employed with greater facility; the odor is agreeable to the patients; it produces no cough, or sense of heat in the chest. During the insensibility the patients usually snore as in ordinary sleep. The pulse and respiration are usually a little accelerated. Another advantage of this fluid over ether is, that it is not exposed to the risk of exploding, like ether, when used by candle or lamp-light.

M. Blanchet remarks that, inasmuch as the color of arterial blood is always more or less altered in persons or animals under the influence of the vapor of chloroform, it would be desirable, in cases where the inhalation has been carried too far, to act upon the kind of asphyxia produced, by the inhalation of a mixture of gases richer in oxygen than the air of the atmosphere is: he says that such a view is substantiated by the results of his experiments on animals.—*London Med. Gaz.*, Feb. 1848.

# THE DENTAL NEWS LETTER.

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JULY, 1848.

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We would inform our numerous readers that we design increasing the size of the News Letter to, probably, double its present size; that is, give twenty-four pages of reading matter, independent of the cover; and, as this is the last number of volume one, we shall begin with the first number of volume two. Whether we shall increase the price or not, we have not yet decided, but we will endeavor, with the aid of the profession, in the way of original communications, to make it of interest to every practitioner. We trust, therefore, that all who may have any thing of interest to communicate to the profession, will let us hear from them in season for each quarterly number.

In making this change, we depend, for matter, in a great measure, upon new as well as old correspondents, and hope we shall not be disappointed.

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Some months ago we requested the "Dental Register" to be sent to us, but, from some cause, we have not yet received it. Will the Editors attend to our request?

---

We have just received the tenth number of the New York Dental Recorder, in which we notice another article on the amalgum question, which has now become almost as interesting as the old question, "will saltpetre explode?"

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"A Dental Student" is informed that the reason why his article did not appear, is, that we handed it to the author of the essay for the purpose of having a reply to publish in connection with it, but that he declined answering it on the ground that it had no responsible name attached. We think he has mistaken the meaning of the author of the essay in question, for, at the outset, the author states plainly, that the term caries is not a correct one to apply to the decay of teeth, and goes on to show what mortification and caries are, and then says, "An amendment to the nomenclature of our profession will not be proposed in this paper," thus showing clearly his objection to the term when applied to the decay of teeth.

If, as urged, he has not shown clearly what caries are, he has certainly shown what decay in the teeth is, and the cause, or, at least, his theory of it. The design, we suppose, was not to write an essay on the term caries, but on the disease which has been so termed. There are, probably, some inconsistencies, and a want of clearness in the essay, and the phraseology in one or two places

might be improved, but it must be recollected that it was written in haste, which is sufficient apology, and as "A Dental Student" seemed to write more for the eye of the author of the essay than for general readers, his object has been accomplished.

Under these circumstances, he will pardon us for not publishing his article.

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We have been authorized by Dr. Hill to sell the fillings at ten dollars per package.

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We have received an article for taking impressions, (described in third number,) which includes three sizes, all for \$1.25. We have received also a lot of "Gutta Percha," for bands for Lathes, Grinding Apparatus, and for Ligatures, etc. etc.

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We noticed in one of our newspapers an article stating that Dr. W. T. G. Morton has had presented to him, by the surgeons of the Hospital in Boston, *One Thousand Dollars in a Silver Box*, complimentary to his connection with the ether discovery.

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We design procuring a supply of "Gutta Percha Cement," for attaching broken plaster casts, to cover decayed roots when inserting pivot teeth, etc. etc.

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### OPHTHALMOLOGY.

*Painful Affection of the Eye cured by the Extraction of a Tooth.*  
 —Dr. Emmerich relates a case of this kind. A man consulted him on account of a painful affection of one of his eyes, which had lasted for nearly fourteen years, and occasioned him great suffering. There was considerable vascularity of the conjunctiva and sclerotica, especially around the cornea, which structure itself was somewhat opaque and spotted. There was a continued flow of tears, with pain and intolerance of light. All these symptoms were greatly aggravated by any indiscretion in diet, and the use of the slightest stimulus, such as a single glass of wine. All kinds of remedies had been in vain tried, at different times, and the affection seemed incurable. On examining the upper jaw, Dr. Emmerich found a carious molar tooth on the side corresponding to that of the affected eye; the portion of jaw around this tooth was painful, and very sensitive to the touch. The patient thought that the pain in his jaw had begun about the same time that the affection of the eye commenced. The tooth was drawn, and almost immediately afterwards the symptoms relating to the eye began to subside, and soon entirely disappeared. The suffering in the eye was evidently the result of sympathy between the second and third branches of the fifth pair of nerves.—*Dub. Med. Press*, April 19th, from *Henle and Pfeufer's Zeitschrift*, 1847.

We give below some additional testimony in reference to our manufacture of teeth :—

“ I consider your teeth decidedly the best in market.”

ALEXANDER NELSON.

*Albany, N. Y., May 22, 1848.*

“ I have used some of your foil, and do not hesitate to say that it is equal, if not superior, to any I have ever used. And your artificial teeth, particularly the molars and bicuspidés, by far surpass any I have ever seen. They not only save the dentist labor in grinding, &c., but, from their very natural appearance, in shape, finish and color, must, if properly inserted, give great pleasure and satisfaction to those for whom they are inserted, which latter consideration is of vital importance to the operator.

G. H. LEITCH.”

*Virginia, Nov. 2, 1847.*

“ I have tried a good many of the last gum teeth I got of you, and they surpass any thing of the kind that was ever made before.

J. G. WAYT.”

*Richmond, Va., June 15, 1848.*

“ I can truly say that your Teeth are the most perfect specimens of artificial dentures I have ever seen. The form, shade, indentations in the enamel, &c. &c., combine to make them so natural in appearance, that, when properly set, it will be extremely difficult to detect them. I think you have reason to congratulate yourselves on your success in this difficult and important point. You cannot fail of great success, I am sure, for your Teeth have only to be seen, in order to insure their general use.

C. N. HICKOK.”

*Bedford, Pa., April 21, 1848.*

“ I feel very great pleasure in commending to the Dental Profession, the Teeth manufactured by Messrs. Jones, White & Co. I have used them almost exclusively in my practice for the last year, and find them, in point of strength, beauty, and close resemblance of the natural organ, all that could be desired in artificial teeth. I feel equal gratification in saying, that I have, in my intercourse with Messrs. Jones, White & Co., always found them *reliable gentlemen*.

W. W. H. THACKSTON, D. D. S.”

*Farmville, April 17, 1848.*

ASAHIEL JONES.

SAMUEL STOCKTON WHITE.

J. R. McCURDY.

# JONES, WHITE & Co.

MANUFACTURERS OF

## PORCELAIN TEETH,

## GOLD & TIN FOIL, PLATE, SPRINGS,

PLATINA PLATE & WIRE, EMERY WHEELS, &c. &c.

No. 263 Broadway, (opposite the Park) New York;  
And No. 273 Race St. (one door above Eighth,) Phila.

J. W. & Co. have, at the above named places, a full assortment of PLATE, PIVOT, MOLAR, BICUSPID, and GUM TEETH; GOLD and TIN FOIL, EMERY WHEELS and SLABS, DENTAL FILES, INSTRUMENTS, CHAIRS, &c.; where we would solicit the patronage of the Profession, pledging ourselves to use our utmost endeavors to give satisfaction, as particular attention will be paid to select Teeth according to order.

All orders, *enclosing the cash*, will be promptly and carefully attended to.

N. B. Orders for Instruments will be executed with care, at manufacturers' prices.

### DENTAL CATALOGUE.

#### Teeth.

Plate Incisors.	Excising, straight and curved Forceps,	1 75
" Cuspidates.	Separating, or splitting Roots	" 1 75
" Bicuspids.	Hullihen's Screw Forceps, for extract-	
" Molars.	ing Roots, - - -	2 00
Pivot Incisors.	Small right and left Forceps, for Chil-	
" Cuspidates.	dren's Teeth,	1 75
" Bicuspids.	SECOND QUALITY TOOTH FORCEPS.	
" Molars.	Right and left upper Molar Forceps,	\$1 50
Gum Incisors.	" " lower " "	1 50
" Cuspidates.	Upper and lower Bicuspid,	" 1 50
" Bicuspids.	" " Dentes Sapientiae	1 50
" Molars.	Straight and curved Stump	" 1 25
Teeth in sets, on cards, of all shades and sizes.	Hawk's Bill,	" 1 25
	Small Forceps,	1 00

#### Gold.

A superior article of Gold Foil, from No. 4 up to 12, inclusive.	
Gold Plate, 18 Carats fine, per dwt. 90 cts.	
" Solder, 14 & 18 " " 75 & 90 "	
" Spring Stuff, 18 " " 90 "	
" Wire, round and half rd. " 90 "	
" Spiral Springs, 18 Carat " 1 00	

#### Silver.

Silver Plate.	
" Solder.	
" Powder.	
" Wire.	
" Springs,	per pair 50 cts.

#### Forceps of the most Improved Patterns.

FIRST QUALITY TOOTH FORCEPS.

Right and left upper Molar Forceps,	\$2 00
" " lower " "	2 00
Upper and lower Bicuspid	" 2 00
" " Dentes Sapientiae Forceps,	1 75
Straight and curved Root, or Stump	" 1 75
Narrow Beak, for Crowded Teeth,	" 1 75
Hawk's bill,	" 1 75

#### Turnkeys.

Various patterns, at various prices.

#### Stump, or Root Extractors.

Various patterns, at various prices.

#### Lancets.

Every variety, at low prices.

#### Plugging Instruments.

Largest size Pearl Handled Instruments, Gold Ferrules,	3 00
Second do.	2 00
Largest size Pearl Handled Silver Ferrules,	2 00
Second " " " " "	1 75
Largest " Ivory " " "	1 00
Second " " " " "	75
Third " " " " "	50
Small Ivory Plain Silver Ferrules,	38
Largest size Ebony " "	75
Second " " " "	38

#### Scaling Instruments

Pearl Handled Instruments, Gold Ferrules,	2 00
" " " Silver,	" 1 75

# THE DENTAL NEWS LETTER.

Vol. II.

OCTOBER, 1848.

No. 1.

For the Dental News Letter.

## PLUGGING TEETH.

*Messrs. Jones, White & Co.*

GENTLEMEN—Agreeably to request, I will endeavor to furnish you with as concise a description of plugging teeth with gold as my time and abilities will allow.

As this operation is of ancient origin, and is practised to a much greater extent at the present day than at any other known period of the world, it is a sufficient reason that we should bestow upon it all our talents and energies; and that it is the most important branch of duty which engages the attention of the dental practitioner, no one will, I believe, for a moment doubt.

My remarks will be entirely confined to the use of gold as a substance for plugging, as I do not wish for a moment to engage in the storms of controversy which have extended over our whole country of late years, with reference to the use of the compounds of the baser metals and amalgum. Various as have been the descriptions of this operation by authors, there are none, as far as I have seen, that will enable the young practitioner to produce a very satisfactory result, and very few agree with regard to the manner in which it should be done.\*

There is no art, the mechanical execution of which affords a wider scope for a display of dexterity and gracefulness of manipulation than that of plugging teeth; for it is literally making a workshop of the mouth; and to approach a highly sensitive patient in a slovenly and bungling manner, must of necessity be rendering an unpleasant operation at best, really distressing and painful; hence many preparatory requisites, apart from the mere instruments used in plugging, are highly necessary. It is presumed that the patient is seated in a suitably constructed chair, for the maintenance of an easy posture in any desirable position—desirable as well for the operator as the patient; this is indispensable for the proper execution of any operation upon the teeth. Every patient should be supplied in the first place with a clean napkin, a glass of water, and spittoon within convenient reach. Many remark that the water should be tepid, but this is not often requisite; water of the temperature of the operating room is generally

\* I wish to be understood as writing for the young, and not for the old.



most suitable, because the friction upon the teeth by the filing, scraping, &c., fevers them more or less, and cool water is more advantageous than otherwise, as it is refreshing, and keeps down vascular congestion of the teeth and gums; if a highly sensitive tooth is prepared for plugging, merely filling the cavity with a pledget of cotton will prevent a thrill of pain to the patient while rinsing the mouth, while lukewarm water favors a determination of blood to the mouth, and promotes a relaxation of the parts generally. The operator should invariably wash his hands and instruments before examining the teeth of a patient, to avoid unpleasant associations relative to cleanliness; this simple neglect may give the patient a disgust to every thing that he may do thereafter. There is no point upon which a patient is more sensitive than this. He must never approach a patient without a napkin in his own hand also, because he should have the convenience of wiping every dampness of the saliva from his fingers, and any substance from his instruments that may get upon them during an examination of the teeth.

*Preparation of the Cavity.*—First determine as nearly as possible the depth of the cavity, with a view to the reduction of its margins, (I have reference here to the cavities on the approximal surfaces of the teeth,) and for this purpose the file is the most useful instrument,\* which should be of various construction to suit the different localities of the teeth; for the front teeth the usual separating file cut upon both sides may be used when it is desirable to reduce an equal portion of each tooth, but when one tooth is decayed and the other sound, a file cut upon one side only is generally most suitable, because we cannot only avoid, if we wish, cutting away the sound tooth, but the smooth side of the file can be depressed against it, so as to cut away more of the affected tooth upon the posterior part than upon the anterior; an effect which is always desirable, in order that the separation shall be much wider upon the back parts of the teeth than upon the front; for two important reasons, first, that the plug may face backwards to obscure it from view, and secondly, that in the act of biting into any substance of food, it will glide upwards and outwards upon the inclined plane which the surface of the plug and tooth will present, as that is the direction of the motion of the inferior maxilla when biting with the front teeth; in this way the plugged surface is constantly kept clean; to face the surface of the plug outwards by a careless use of the file is inexcusable, when it can be avoided. It is in almost all cases desirable to reduce one-half of the enamel of the sound tooth so as to make the approximal surfaces as nearly equal in appearance as possible, and that sufficient projection shall be left along the lower boundary of the cavity near the necks of the teeth to prevent the filed and

\* As the file becomes warm, as well as the teeth, of course it should be kept wet and cool, by frequently dipping it into cool water



plugged surfaces from ever touching again. It is frequently desirable to file the posterior margin of the cavity concave; for this purpose, a thin file with an oval cut, and a flat, smooth surface, is indispensable, because the smooth surface can be depressed against the anterior margin of the adjacent tooth, so that the oval surface will cut away the posterior margin of the affected one in a concave manner; I mean that the convex side of the file shall not touch the front parts of the teeth, unless they are much decayed. Looking from behind forwards, the separation should present the view of an abrupt termination of a cone, instead of a square notch or slit, which a file with two parallel surfaces is calculated to produce. As the enamel is thinner on the back parts of the teeth than the front, and frequently breaks away before decay is observed by the patient, this method of filing is frequently indispensable.\* I do not wish to be understood that the front view of the separation between the front teeth shall also be of a cone shape;† yet they should be filed away sufficiently to remain slightly separate. If they should fall together at their cutting edges in a few months after they have been filed, then separate a little more, for the teeth will often decay between the plugs and cutting edges. In some few cases where there is a great disproportion between the breadth of the cutting edges and the necks of the teeth, back as well as front, which, when they are decayed near the gum, it would be impossible to file away the cutting edges sufficiently to allow the necks resting together; in such cases it is not common for the teeth to decay near their coronal‡ extremities, and when they are not decayed, they should not be filed, but should be plugged, and a tape or piece of silk daily passed between them in order to keep the teeth and plugs clean. With reference to the bicuspid and molar teeth, a similar rule for filing to that of the front teeth should be observed, except that the separation should present a shape resembling a cone with its apex towards the necks of the teeth, for which purpose a file of similar shape should be used, as well as a file resembling the letter V,§ and be certain to cut away sufficient of the coronal extremities of the teeth to ensure a continued separation, and sufficient of the enamel of the face|| of the tooth, to prevent it breaking away by mastication after the cavity is plugged. Very frequently the facial margin of the cavity opposite the middle of the crown must be dressed in a concave line, running from the lingual to the buccal

\* The filed surface of a tooth should never terminate at an angle near the neck, but on the contrary it should terminate at nothing, in order that every portion of the exposed bone should be covered with the gold, so that in cleaning with a tape it will touch all parts of the plug and tooth.

† It should be the constant study of the operator in filing the front teeth to preserve their natural symmetry as much as possible.

‡ I shall use this term to indicate the cutting edges and prominences of all the teeth.

§ The files here mentioned can be procured at Mr. Murphy's, No. 110 north Fourth st.

|| I shall use this term to designate the grinding surfaces of the molar teeth.

extremity of the tooth, as the enamel is more brittle, imperfect, and thin, corresponding with the crevices or cliffs of the faces of the teeth, than at its coronal extremities. The most important principle to be observed is, that the teeth be filed sufficiently to prevent breaking away after they are plugged, and present an inclined plane facing towards the opposite jaw.\*

Another very useful instrument is a kind of chisel, similar to a joiner's small paring chisel, slightly bent, so as to bring the edge in contact with the tooth with facility. Some should be constructed with the edge parallel with the shaft of the instrument, similar to a strong gum lancet. These instruments made small are indispensable for opening the facial cavities, because the openings are often mere crevices or fissures, and the enamel being very hard, a blunt burr drill will not enter very well, yet this form of drill is often invaluable, and any kind of a flat drill will become bound between the opposite margins of the cavities, and give great pain in attempting to rotate it. A small and pointed triangular drill will often be useful when the openings are very small, and triangular scrapers of different sizes are also requisite.† As the direction of the enamel fibre is from the surface of the tooth to its centre, of course its cleavage is in that direction, and the chisel leaves a thin and oblique margin to the cavity of decay, which must be reduced by the file, as a straight, thick and strong margin is necessary to fit the plug to.

If the foregoing papers meet with your approbation, gentlemen, I will be pleased to continue the subject in your next number, and speak of the further preparation of the cavity characteristics of decay, the instruments used in plugging, &c. &c.

J. D. WHITE, M. D.

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For the Dental News Letter.

## A CASE OF THE PRODUCTION OF A THIRD TOOTH.

Perhaps there is nothing more remarkably illustrative of the *recuperative powers of Nature*, than the production at a late period of life, of a *third set of teeth*. Many instances of this kind are related by dental writers. But the following, of a somewhat different character, may perhaps be new to most of your readers.

A gentleman now residing in this place, Mr. S. M., when about three or four years of age, had by accident the right central incisor knocked out with the point of a pitchfork. In the course of two or three months afterwards, another tooth, rather stubby and abnormal in appearance presented itself, which grew down and

\* Many are in the habit of separating the teeth with cotton, India rubber, soft wood, &c., but it is as unsuccessful as it is unphilosophical. If the decay of the teeth is at all favored by contact, then the practice is unsound.

† The kind of scrapers here alluded to can be obtained at Mr. H. G. Kerns', No. 293 Market street.

supplied the place of its predecessor. It was afterwards, by due course of absorption and shedding, replaced by the present very beautiful *permanent* tooth.

Now the question arises, was the *secondary* deciduous tooth an *entire new production*, on the part of Nature, to supply the deficiency? or are we to seek for some other solution of the matter? In other words, can a *deciduous tooth*, under any circumstances, be reproduced by the restorative powers of Nature, when its fang and pulp have been entirely removed? In this case, it certainly appears to have been done; and the opinions of experienced physiologists on the question, would be very desirable.

JAMES FLEMING, M. D.

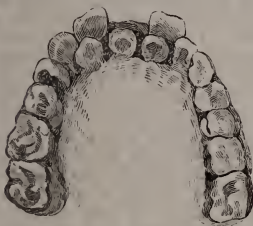
Harrisburg, Pa.

For the Dental News Letter.

## IRREGULARITY OF THE TEETH.

Messrs. Jones, White & Co.

GENTLEMEN—Allow me through the medium of your valuable pages, to offer for the perusal of the Profession, the following interesting case of *Irregularity* in permanent teeth, which came under my notice nearly three years ago. The drawing is from a cast of the mouth taken at that time. It has recently been copied by means of the Daguerreotype to insure its fidelity.



I will briefly relate the history of the case. G. S., an intelligent lad of fifteen, was brought to my office by some of his friends, for whom I had performed various dental operations. My attention was directed to his so called set of *double teeth*. The strange appearance of his mouth, caused me to inquire into details, which even at first sight I could hardly

fail premising. The head of an extraordinarily large size, and the general strumous diathesis of the patient, sufficiently indicated that a strong force had opposed nature in her beautiful regularity.

From his earliest infancy until the age of fourteen, George had been afflicted with dropsy in the head, and having accidentally, at eighteen months, broken off his incisors close to the gums, the roots soon decaying were extracted; leaving a vacancy in the middle of his upper dental arch, which was not filled by his permanent incisors until he was fourteen. In the mean time the alveolar process seemed to have become absorbed, quite as much as in a

subject far advanced in years, and formed anteriorly a deep cavity into which his upper lip sank, giving a peculiar expression to his features.

To this apparent absorption and condensation of the alveolar, do I attribute the scattering and irregular growth of his second dentition, which likewise may be accounted for, by his being so early deprived of his deciduous incisors, and being afflicted as I have stated.

These irregular teeth, to the number of three, being all very much decayed, I extracted, as well as the left central incisor. The gums healed very promptly. At the present time, the anterior depression in the alveolar is entirely filled up, the gums have not shrunk, and his mouth is restored to a normal appearance—as will be seen by looking at the cut, the two ill-shaped teeth in the median line grew in the place occupied by his deciduous central incisors and were consequently an *extra* pair provided by nature to retrieve his early loss.

Tout a vous,

CHAS. A. DU BOUCHET.

Philadelphia, Oct. 2, 1848.

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For the Dental News Letter.

### IRREGULARITY OF THE TEETH.

An interesting case of irregularity, arising from the presence of supernumerary teeth, came under my notice a few weeks since. A lady of perhaps twenty-three or four years of age, consulted me concerning a slight neuralgia which had affected the right side of her face and head for some weeks. On examining her mouth, I found a full set of well developed, fine looking teeth. The *dens sapientiæ* on the left side of the mouth, was of the usual size, and formed more like the 1st and 2d molars than is generally the case. Close beside it on its interior surface, but entirely disconnected from it was a small tooth of the thickness of a large straw, of a conical shape, with a slight indentation in its grinding surface. At the right side of the mouth the *dens sapientiæ* was small and did not occupy more than half the room, laterally, of the adjoining molar, but its outer surface was on a range with the anterior of the arch, at its inner side, in the angle formed by it and the 2d molar, a small tooth similar to the one on the left side, was making its appearance. From the inflammation and other symptoms attending it, I had no doubt that it was the cause of the pain.

I also met with a case lately in which there were five superior incisors, the two central, one right lateral and two left lateral, both so well developed in shape and color that it was impossible to tell which was the usurper, the adjacent teeth were all present, and completely in the line of the arch.

C. N. HICKOK, Dentist.

Bedford, Pa.

Reported for the Dental News Letter.

## REPORT OF THE PROCEEDINGS OF THE PENNSYLVANIA SOCIETY OF DENTAL SURGEONS.

The Society met at 7½ o'clock, at the Hall of Pharmacy, Oct. 3, 1848. President, Dr. E. PARRY, in the Chair, and Mr. A. R. JOHNSON, Secretary.

Minutes previous meeting read and adopted.

Treasurer's report now read, and a Committee appointed to audit, who reported a very favorable state of the finances.

Chairman of the Examining Committee handed in a committee report in favor of receiving Mr. W. R. White into membership.

The Committee to whom was referred *Lawrence's Tongue Holder*, reported through their Chairman, Dr. J. D. White, as follows:

### REPORT OF COMMITTEE ON LAWRENCE'S TONGUE HOLDER.

*To the President and Members of the Pennsylvania Association of Dental Surgeons:*

GENTLEMEN—Your Committee appointed to investigate the merits of Lawrence's Tongue Holder, respectfully beg leave to announce that they have attended to that duty. The Committee, therefore, respectfully report, that as far as they have tried it, they find it to be very useful in many prolonged operations in plugging the teeth, as an assistant in keeping away the tongue and saliva; but on account of its depressing the tongue too much, in many cases, and forcing it against the fauces, and producing nausea, it is not as useful in general practice as was at first anticipated by your Committee; still there are many instances in which it will be found to be almost indispensable. While every compliment is due to Mr. Lawrence for the very liberal manner in which he has laid it before your Committee, yet, they would be doing injustice to a highly respectable French author, M. Desirabode, (who has used and described the same contrivance precisely, as will be observed by a reference to page 262 of the American Library of Dental Science, for 1847,) if they were to regard the principle of Mr. Lawrence's apparatus as anything more than identical with M. Desirabode's. However, the Committee do not wish to be understood as believing that Mr. Lawrence did not invent it without the knowledge of its former existence. The following is the description of the instrument as given by M. Desirabode: "The tongue may be kept out of the way by means of a fixture, made of two semi-elliptical plates of boxwood, ivory or platina, applied, one to the roof of the mouth, the other placed upon the tongue, and kept apart by a piece of whalebone, curved backwards and fixed by each end into sheathes made in the plates to receive them. The superior plate is terminated by an appendage which touches the posterior border of the alveoli and the teeth in order to make a projection out of the mouth, by

which the apparatus may be removed with facility and promptitude in cases where it forms an obstacle which cannot be immediately removed by the fingers."

*Resolved*, That a vote of thanks be awarded to Mr. Lawrence, for presenting the subject to the consideration of the Society. All of which is respectfully submitted.

Signed.

J. D. WHITE, M. D.  
S. T. BEALE, M. D.  
Mr. C. C. WILLIAMS.

The resolution was adopted.

Next in order was the report of the Committee on *Gilbert's Central Cavity Plate*:

*To the President and Members of the Pennsylvania Association of Dental Surgeons:*

GENTLEMEN—The Committee appointed by you to examine into the merits of "Gilbert's Patent Cavity Plate," respectfully beg leave to report that they have attended to the duties assigned them as far as in their judgment is necessary. With reference to the priority of invention of this plate, your Committee do not pretend definitely to report, inasmuch as numbers claim the originality from ten to fifteen years back; still, there does not seem to be any evidence of it, except their own assertions. However, some operators have constructed a plate with a number of chambers, and consider it to have been done for the same purpose, as the single chamber claimed by Gilbert, or in other words, that the invention of one is equivalent to the invention of the other, and that substituting one chamber for any number, does not entitle the modification to the credit of originality. Now inasmuch as Mr. Gilbert was the first (as far as your Committee are aware) to make the Cavity Plate public, he is entitled to the credit of the invention, so far as it subserves the public good, for we make no doubt that those who have been capable of confining it to the secrets of their own closets for fifteen years, would do so that much longer; however your committee will leave that part of the subject, believing that his patent papers will protect him against any unjust attacks from pretending claimants.

With regard to its practical uses, your committee would report, that in a great number of cases, it has been most markedly successful, and in cases, too, where springs had been unsuccessfully applied by different operators, and they believe also that this happy result has been from the use of the "Central Cavity Plate."

This central cavity seems to be a kind of "neutral ground" or reservoir, as well for atmospheric air as the elasticity of the gum, and it is well known that the alveolar process is constantly undergoing slight absorption until it entirely disappears, and, that when the plate extends over the entire surface of the hard palate,



it will sooner or later impinge with more force upon it, than upon the alveolar ridge, and produce a rocking motion of the artificial teeth, a difficulty which this central cavity in a measure prevents, and as there is some elasticity in the gum at all times, unequal pressure upon any part of the operation will produce a rocking motion even of a well-fitted plain plate or a plate with cavities upon opposite sides; the hard palate will act as a pivot upon the central part of a plain plate, from the yielding character of the gums over the alveolar process, and destroy the full influence of the atmospheric pressure in many cases. This cavity plate can be applied in a large number of cases for setting a single tooth, or an indefinite number, as the accompanying specimen will illustrate.\* It is an instance where two teeth have been injured by clasps, but which are now worn with entire comfort and usefulness. By an examination of a great number of cases which have been worn from four to seven months, and kept in the mouth constantly, (except while cleansing them,) no irritation of the hard palate was observable, or unpleasant consequences in any respect. In some few cases where it has not been entirely satisfactory, it seems to have resulted rather from an improper adaptation of the plate, condition of the mouth, or an inability of the patients to accommodate themselves to it, than a want of power in the plate; notwithstanding it is believed where springs have been applied, the cases are worn with greater usefulness than had the cavity not been used also.

*Resolved*, That a certificate of approval of the Central Cavity Plate, should be awarded Mr. Gilbert by this Society.

This was approved, and received the signatures of the officers of this Society.

Signed,	J. D. WHITE, M. D.	} Committee.
	S. T. BEALE, M. D.	
	ELY PARRY, M. D.	

On motion of Dr. J. D. White, a committee was appointed to report a plan for the establishment of a Cabinet and Library, for the Society. Drs. E. Parry, J. D. White, C. C. Williams, F. Reinstein and A. R. Johnson, the committee, with power to add.

An interesting debate here sprung up on the action when two metals are used in one filling, such as gold and tin, the saliva acting as a menstruum or medium, and where the baser metal is oxidized by exhalents and by imbibition through the bony structure of the tooth. Many facts were brought out, and much information obtained.

In conclusion, we may add, the right spirit is manifested by the members, and every thing bids fair to place the Society in that position, whence much good may be disseminated among the members.

M.

\* We saw the plate above referred to.—*Ed.*

## CARIES.

*Messrs. Jones, White & Co.*

In view of the various and distressing maladies to which caries gives rise, among which may be mentioned total destruction of the teeth, necrosis of the maxillary bones, odontalgia, fistula of the face, and enlargement of the lymphatic glands of the neck, aphthæ, ulceration of the mucous membrane of the mouth, and particularly of the tongue, to say nothing of the impairment of voice, destruction of beauty, the inability to masticate food, and hence that camelion malady, dyspepsia, together with the annoying diseases to which it gives rise, and their name is legion.

It is natural that the young and inquisitive mind should be anxious to get a good insight into the true nature and character of the disease called caries. It is for the above reasons that we are induced to make a few comments on an article that appeared in the January number of your journal on "Caries of the Teeth." After a careful and frequent perusal of the aforesaid article, we must acknowledge that we were unable to come to any conclusion as to the true definition of the term caries, or of the condition of the tooth he intended that term to express, for, the author observes that "Caries is an ulceration of the bone characterised by swelling, discharge of pus, peculiar odor," &c.; but immediately following, we are informed that the occurrence of this swelling, discharge of pus, peculiar odor, &c. never does occur, except when attended with inflammation of the pulp, therefore caries is not an ulceration of the bone, except under peculiar circumstances; then the first definition is not true; hence what are we to understand by caries? But probably the idea intended to be conveyed, is, that caries is an inflammation of the pulp, and this, as any other vascular body when inflamed becomes swollen, yet, even with this construction, we are equally as deep in the dark as ever, for how can an inflamed pulp be called a tooth? And such you must call it, if the above construction be taken, then caries cannot be an ulceration of bone, attended with swelling, &c., for one thing is certain that a tooth cannot swell; hence, then, we still press the question, and ask, what is caries?

Again, in paragraphs three and four, page eighteen, the writer unfortunately introduces experiments, by means of which he would appear to prove that a minimum quantity of acid is capable of bringing about that result or condition of a tooth, which on a previous page, he says, "like gangrene and mortification could be the result of nothing but inflammation." How this acid should be such a destructive agent to the teeth, is still a mystery to us. The author contends that it removes the enamel, which by no means necessarily gives rise to caries. We have seen many cases where it has been removed from the incisors, yet caries has



not supervened, and I presume our author is daily in the habit of removing it with his file, and no doubt with the honest conviction that so far from promoting the destruction of the tooth he arrests it.

It seems unreasonable to us that since the removal of the enamel by the file of the dentist, or by any other mechanical means does not produce caries, that a chemical agent can occasion it, certainly it can do no more.

Besides it is difficult to conceive how an acid having a greater affinity for the lime of the tooth than the phosphoric acid (and in fact there are but few, yea, very few such,) could remain in contact with the tooth in a state sufficiently concentrated to exert any chemical agency upon it. Again, the presence of acid or any acrid substance in the mouth always augments the secretion of the salivary glands, so that it becomes speedily diluted.

Again, in the last paragraph of page eighteen, there seems to be a renouncement of the position first assumed, viz.: that caries is always a result of inflammation—for it is there remarked that if it was “the crowning operation of the dentist (that of plugging) would never arrest its progress or preserve the tooth,” hence we are left to infer that caries is a condition of a tooth *not* the result of inflammation, but of the chemical action of acids, and I would be very happy to learn if the observations of the author have led him to this conclusion; for if so, magnesia would not only be an excellent remedy for acid dyspepsia, but it would supercede entirely, if taken in time, the intervention of the dentist.

After a thorough examination of the article, we can but exclaim in the language of another, “Oh! consistency, consistency, thou art a jewel!”

In conclusion, permit me to remark, that though much gratified while glancing over the above mentioned essay, to find that the author had placed a proper estimate upon the importance of his subject, I was not a little mortified to see that we should so soon be forced to lament that our friend had failed to place a sufficiently high estimate upon the importance of clearness and precision in the unfolding of his views as to make himself as explicit to his readers as he would appear to himself, for I must acknowledge the farther I proceeded, the more deeply was I plunged in the labyrinth of doubt and obscurity. Yet, unlike Dr. Johnson, I am unwilling to acknowledge that he has not a clear idea of his subject, because, forsooth, he should occasionally mistify; and hence it is, that I was induced to write the present article, with the earnest hope that the author might express himself or his views more clearly, concisely and pointedly, and this too, I do not so much on his account, as for the interest of beginners and inquirers into the subject.

R. R. PURYEAN,  
A Dental Student.

For the Dental News Letter.

### "HILL'S STOPPING."

Some of the many readers of the News Letter will doubtless feel interested in all the information they can obtain in relation to the success of this new article for stopping carious teeth. And what are its future prospects with the profession.

Having used it longer, and probably much more extensively than any other person, we propose to make a brief statement for the benefit of all who have any curiosity or interest in the matter, regarding the utility of this new compound.

First then, we would say, that every statement put forth in our circular, regarding its utility, is *strictly true*. Our first stoppings seem to be as good to-day, as when they were inserted. And our subsequent experience has given us the greatest assurance of success.

We have experimented extensively, in every variety of case that could command our attention, and we are free to affirm, that in *no* case, involving the character of this compound, has there been a failure. And this is the more remarkable, when we consider the circumstances under which it has been applied. We have sought the most desperate cases in which to test it, and have narrowly watched the result of our experiments, and the conviction is forced upon our own minds, that for *convenience, utility, and harmlessness* withal, it is *invaluable*.

We believe it to be more homogeneous with, and better adapted to the circumstances of decayed teeth, than any other stopping now in use. And the only question regarding it is, will it stand? To this we reply, *it does stand well* thus far, time only can determine its utmost durability. We have hopes regarding it, that we scarcely dare make public at the present time, but we think that a *fair* and impartial trial on the part of our professional brethren, of this compound will by no means diminish the prospect of their final consummation.

In addition to our own observation and experiments, we have the satisfaction to know, that *it is used, and recommended*, by some of the *ablest* and *most reputable* dental practitioners in the world. And we have received numerous letters from different parts of our country, and from men of high standing in the profession, saying all that we could ask in favor of our stopping. Consequently, our confidence increases with its use, and whatever our hopes may have been in times past, they are now stronger than ever before.

A. HILL, D. D. S.  
SAMUEL G. BLACKMAN.

Norwalk, Ct., September 26th, 1848.

For the Dental News Letter.

## EASY EXTRACTION.

We recollect a case of easy extraction, at the thought of which we have had many a hearty laugh.

An old gentleman who was exceedingly timid, presented himself to a dentist for the purpose of having some four teeth removed, the fangs of which were so exhumed (if we may be allowed the expression,) that the thumb and finger alone were abundantly sufficient to accomplish the much dreaded operation. Still the dentist determined to play a little upon the old gentleman's feelings, and accordingly, with many asseverations that it would not pain him much, made a great display of forceps, lancets, elevators, punches and turnkey, showing him each and their mode of application. Then fixing the patient's head in a proper position proceeded to the operation of lancing the gums, which he just pressed with the lancet, not cutting them in the least, then applied the forceps and apparently exerted much power and force, giving considerable lateral motion although there was no strain whatever on the tooth, then with a sudden jerk removed the tooth, and so on until all were extracted.

The old gentleman rose from the chair much elated, and could not find words to express his gratitude for the skilful manner in which the almost painless operation had been performed.

The old gentleman's countenance—the dentist's display of force—and the running conversation which took place was altogether too much for our risibilities and we sloped. J.

For the Dental News Letter.

## LAWRENCE'S IMPROVED PORTABLE BLOW-PIPE.

COMMUNICATED BY JOHN K. TOWNSEND, M. D., OF THIS CITY.

*Messrs. Jones, White & Co.*

I have just received from Mr. Henry Lawrence, now temporarily resident in Allentown, Pa., a most beautiful little bellows blow-pipe recently invented by him; which, for the perfection of its construction, the ease and facility with which it is used, its extreme portability, and though last, not least, its great cheapness compared with all others now in use, cannot, I think, fail highly to recommend it to dentists, and to any other persons whose occupation requires the use of such an implement.

The whole machine is but about nine inches long, eight inches wide, and six inches deep; and even these small dimensions may be contracted, if greater portability be desired, by removing certain portions of it; for every part of the blow-pipe, excepting the bellows, may be taken in pieces, and reunited in one minute's time.

It is, in brief, constructed as follows: A small double bellows is made, with a treadle for the foot fixed horizontally over it, to

one end of which a hinge is attached, the other being rendered stationary by a little hasp and staple. Instead of weights, the bellows is made to rise and fall upon the application of the foot to the treadle, by two springs of coiled brass wire properly attached to the machine. The air passes through a long, flexible tube, with a brass jet attached, by means of which the operator obtains a facility in the management of the flame which, in my opinion, alone renders this little instrument superior to any I have yet seen.

I feel assured, Messrs. Editors, that few dentists who have hitherto contented themselves with the common mouth blow-pipe, will fail to supply their laboratories with this simple and most effectual little machine, after they shall have witnessed the ease and certainty with which it performs its appropriate work. Its price also,—which I presume will not exceed one-third that of the ordinary bench blow-pipe,—taken in connexion with the superiority of its operation, must, I think, speedily induce a large majority of our dentists to adopt it so soon as it shall be offered for sale.

We have made arrangements for the manufacture of these blow-pipes, and hope, in the course of a week or two to be able to furnish them to the profession. JONES, WHITE & Co.

### CHLOROFORM IN CONVULSIONS OF INFANTS.

H. L. SABIN, WILLIAMSTOWN, MASS.

“I was called to a child, five months of age, who for nearly two hours had been laboring under most severe and unremitting convulsions. There was a constant spasmodic jerking of the muscles of the arm, together with the diaphragm and abdominal muscles. Respiration was much impeded, and there was strabismus of both eyes. The surface was growing more and more cold and livid, and a clammy sweat stood out upon the little sufferer’s face and temples. As various antispasmodics had been tried without relief to the patient, I decided upon using chloroform. But a few inhalations were made before the eyes rolled up, the spasm of the muscles ceased, the breathing was free and easy; in fact, the child ‘came out of the fit.’ The pulse, which had been absent from the wrist, before the administration of chloroform, was perceptible at once, and the surface of the body grew warm. In about three minutes entire consciousness returned, and in a short time the babe nursed.

“Means were then adopted for regulating the disordered state of the bowels, upon which the convulsions were probably dependent. No vomiting, and no unpleasant effects whatever, followed the use of chloroform in this case. The nervous system was fortified against it, just as in acute tetanus, patients will bear enormous doses of brandy or opium.”—*Bost. Med. & Surg. Jour.* Ap. 5.

# THE DENTAL NEWS LETTER.

OCTOBER, 1848.

We have, as our readers will notice, fulfilled the promise made in our last number, to enlarge to twice the size of the first volume. We have endeavoured to give a good proportion of original matter, and as extracts and selections, that which would be of the most interest, and the most recent. In glancing over the various articles in this number, we cannot but feel pleased at its appearance, and we confidently expect that the "Dental News Letter," will continue to grow in interest, in size, and the good will and confidence of the profession.

To Dr. J. D. White we would say, we trust he will continue the subject, as we are satisfied it will increase in interest the farther we advance. To all other contributors we return our thanks, with hopes that we shall hear from them frequently: and while upon this subject we have one complaint to make, and that is, that so many members of the Dental profession, and many of them among our best operators, should maintain so profound a silence on all the prominent questions that come up from time to time,—surely much good might be done by communicating. Almost every dental practitioner can advance something of interest. Then why not do it? On the ground of reciprocity it is their duty. They read all that is published, but by keeping silent they make no return for all the information thus derived. That they may have no excuse for such a course, we repeat the notice given in a former number, "that our pages are open to all communications of interest to the profession," and our English readers will take notice that this is designed as much for them as for those of our own country.

If we can only awaken more attention to Dental literature we shall be gratified; and not only gratified, but be able to send forth our little quarterly filled with good things. Come, gentlemen, let us hear from you in time for the regular issues of our "Dental News Letter."

In each number of the "News Letter," it is our design to give to our readers such things as will be of interest to them; and although to some few it may be "carrying coals to Newcastle," still there are many to whom they will be of importance.

Sulphuric Ether is still used to a considerable extent in the profession, though not of course in the proportion it was formerly. We find that much less fear is felt by those who administer it than when using the chloroform. It has evidently increased in favor since the decline of the latter, and we think it probable that the public will regain confidence in it, in a great measure.

Chloroform seems to be almost extinct, although several whom

we personally know use it frequently, and contend for its superiority over Ether. We have been informed that Ether and Chloroform combined is used extensively in the New York Hospitals, and much preferred over either one separate. Gutta Percha as an article for taking impressions has not met the expectation, the cause of which is that it is required to be put into the mouth rather warm for comfort. There are many purposes to which it may be put, such as laying a very thin layer of it over the natural root when inserting pivot teeth, for varnish etc., but plaster for taking impressions is decidedly in the ascendant, and we are informed by those who have tried it faithfully that for full cases, both of the lower and upper jaw, it answers an admirable purpose. It is used quite thick, as thick perhaps as mortar, and allowed to "*set*" while in the mouth.

In New York a short time since we saw a lower plate which was "*loaded*" as it is termed. This was done somewhat after this manner: the plate was struck up, the teeth lined and adjusted, and then built up outside and in with *tin*; this was done with a tinman's soldering iron embedding the lower half or more of the teeth, after shaping it properly the whole of the surface of the tin was lacquered over a gum color, this made the case heavy enough to be retained in the mouth, besides giving the ordinary fullness.

This plan we understand is practised to a considerable extent.

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We publish in this number a communication from Dr. Hill on the subject of his "*Stopping*," we can add that the article appears to be growing rapidly in public favor, and bids fair to realize the hopes entertained by its inventor.

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### DENTAL REGISTER OF THE WEST.

We have received the July number of this quarterly. It is a very neat periodical, well conducted, and deserving of abundant success. We trust we shall receive it regularly. We quote the following, which is of interest.

"*Waxed Cloth Cones*.—We received, a short time since, of our colleague, Dr. Brown, of St. Louis, a couple of very ingeniously contrived Waxed Cloth Cones, for arresting Alveolar Hæmorrhage; they appear to be made of strips of muslin coated with wax, then rolled so as to very much resemble roots of teeth—of these various sizes might be kept, so that when a case of hæmorrhage occurs, we have only to select one as near the size of the socket as possible, and after removing the blood from the same, force one of these cones in, and thus by compression arrest the hæmorrhage.

They are certainly exceedingly convenient, and we think possess one or two advantages over any thing else for the purpose we have seen—for instance, if warmed by the heat of the mouth or otherwise, they will assume the form of the cavity, and close it up as perfectly as possible.—CIN. ED."



We are called upon to record, since the issue of our last number, the death of two members of the Dental profession, Dr. P. S. Van Patten, of Lancaster, Pa., and Dr. L. F. Lee, of Bridgeton, N. J., the former of pulmonary consumption, and the latter of bilious dysentery.

We were well acquainted with both these gentlemen, and for whom we ever entertained the kindest feeling and highest respect.

They were both highly esteemed for their skill and integrity in their profession, and have left a large circle of friends and acquaintances to mourn their loss.

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### AMERICAN DENTISTS ABROAD.

Some years ago Dr. C. S. Brewster, an American dentist who studied his profession (if we mistake not) in Philadelphia, went to Paris, and located there, and became very popular; was made dentist to the Royal family, and had various honors conferred upon him; on a visit to St. Petersburg the Emperor of Russia knighted him, beside presenting him with various tokens of his esteem.

Since then Dr. E. Maynard, of Washington city, made the tour of Europe, and making some stay at St. Petersburg, operated for some of the Emperor's family, and on leaving the Autocrat made him also a valuable present as a testimonial of his abilities as a dentist. And now, we have another American dentist (a native of Philadelphia) in Paris, we speak of Mr. T. W. Evans, specimens of whose plugging was exhibited at the exhibition of the Franklin Institute in the fall of 1847 which secured him a medal, and drew forth many commendations as to the skill of the operator. On his arrival in Paris he waited on Dr. Brewster, who, after examining his specimens, immediately offered him a partnership with flattering prospects, which offer was accepted, and Mr. Evans, we are informed, is now a partner of Dr. Brewster. }

We had hoped long ere this to receive a communication from Mr. Evans, but the revolution there, and his individual affairs, have doubtless occupied much of his attention; still we shall look for something from him.

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We have before us the Fourth Annual announcement of the *Ohio College of Dental Surgery*. This institution seems to be in a very flattering condition. The regular annual session of Lectures will commence on the first Monday of November and continue four months.

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*Baltimore College of Dental Surgery*.—This institution is also in a very flourishing condition. The lectures commence on the first Monday of November and end the last of February.

The Mechanical and Dissecting rooms opened on the first of October.

*The Natchez Dentist.*—We have received two numbers of this very unique quarterly, published by H. Claggett and A. C. Dayton, surgeon dentists. It is issued we presume for the benefit of their patrons, and for general circulation.

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### TREPHINING THE ANTRUM HIGHMORIANUM— DEATH WITHIN FIFTY HOURS. DR. EVE.

“The 12th of April, 1844, I operated for enlargement of the right superior maxillary bone. The source of the disease was quite obscure. The patient, a young lady aged eighteen years, had an indistinct recollection of receiving a blow, by a fall upon the cheek, while going to school, very early in life. The tumor was supposed to have originated in the antrum, and had now acquired considerable size. The eye was distorted by it, the cheek projected, the nostrils were closed, and the palatine process of the upper-jaw of the right side much depressed.

“An operation being decided upon, the membrane of the mouth was so detached as to expose the anterior surface of the superior maxilla, and while the lips were drawn to the right side, the crown of a trephine of common size was applied to the bone. Its action was gradually continued until it had attained the depth of one and a half inches. The enlargement proved to be osseous, and the operation for its total removal was for the present abandoned. The diagnosis of four physicians, that it was of a poly-pous nature, was erroneous. A small strip of linen was placed in the opening made by the circular saw, and the patient retired to bed. The operation was well borne; there was no unusual hemorrhage nor unpleasant circumstance attending it, except the error of diagnosis, which was not communicated to her, but was afterwards to her parents. The patient was seated during the time in a large arm-chair. She took  $\frac{1}{8}$  gr. morphine when she lay down. The next day our patient was up in a chair by an open window, as the weather was pleasantly warm, engaged in a sprightly conversation with her friends. She retired early to bed this night without a complaint or unpleasant symptom. About 11 o'clock, having occasion to spit, and finding the basin had been removed from the chair, near the head of the bed, upon the floor, without disturbing her mother, who was sleeping with her, she reached out of bed, with her head down, and took up the basin from the floor. A discharge of blood from the mouth, and pain referred to the seat operated upon, roused the family, and I was sent for. The bleeding had ceased when I arrived, having not amounted to more than a table-spoonful, probably not so much; the lint was removed from the wound, and the mouth freely washed with warm water. Having thus quieted the alarm about the hemorrhage, a tea-spoonful of laudanum was adminis-



tered to relieve pain and induce sleep, and at 12 I left the patient sleeping quite naturally.

“Between 5 and 6 o’clock the next morning, I was summoned in haste by the report that my patient was dying. Her mother stated that she had slept as usual up to day-light, when, to her great surprise, she did not answer when spoken to. The patient was now comatose, unconscious, insensible; had slightly stertorous breathing, dilated pupils, the pulse was frequent and feeble, the eye-lids closed, the countenance flushed, and the skin warm and moist. These symptoms continued in spite of the assiduous and energetic treatment, consisting of cold to the head, sinapisms over the extremities and body, stimulating enemata, directed by four physicians. The patient expired about 12 M., fifty hours after the operation. No post-mortem examination was allowed.”

—*South. Jour.*

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### SINGULAR CASE OF SWELLING OF THE NECK.

DR. PARRISH.

“J. A., a gentleman of robust constitution, aged forty-two, had four teeth filled by a dentist in Philadelphia. On his return home the following day, he exposed himself imprudently to the cold, pursued his business as usual, and at night was seized with chilliness and stiff-neck. On the second day following I was summoned to visit him. Found the whole anterior portion of the neck considerably swelled, indurated, and somewhat tender upon pressure. The tumor occupied a space from the chin to the sternum, and extended laterally on the upper portion, to within about an inch of the angle of the inferior maxillary bone, forming an irregular triangle with its apex at the upper part of the sternum. When exposed to view, my first impression was that it was a Bronchocele, but the history of the case convinced me that it could not be so. The thyroid, the sub-maxillary, and the sublingual glands were all extensively tumefied—so that the patient could not protrude his tongue beyond his teeth—spoke indistinctly, and experienced difficulty in deglutition. A saline cathartic was immediately prepared, which, after much effort, was swallowed. Forty leeches were applied to the swelling, and followed by a plaster of Cantharides. The blister was dressed with warm poultices, and discharged very freely. It was followed by some abatement of the pain, but there continued a great degree of tension of the muscles and integuments; and every attempt to swallow was attended with much suffering. The cathartic operated freely upon the bowels, and was repeated when necessary, in the subsequent treatment of the case. The blistered surface healed in a few days, the plaster of Cantharides was re-applied, and warm bread and milk poultices continued as before. This treatment was persevered in for ten days; the difficulty in swal-

lowing not being in the least diminished until the tenth day, when a copious discharge occurred internally from the middle portion of the tumor, which, of course, admitted a freer passage into the stomach. Up to this period, the patient was unable to lie down, owing to the pressure and weight of the diseased portion upon the trachea. He sat most of the time in his easy chair, and could only swallow thin liquids. His breath being offensive, and mouth very unpleasant to himself, a cleansing gargle was recommended. To use this he would fill the mouth, stand up, hold fast to the bed post, and with the utmost exertion, was enabled to wash out the mouth and pharynx. On the twelfth day, a copious evacuation of muco-purulent matter issued from one side of the mouth; as nearly as I could ascertain from the excretory duct (Wharton's) communicating with the sub-maxillary gland; and on the following day, a similar discharge occurred on the opposite side.—There still remained, however, a good deal of tenderness, and the poultices were continued, with a view of keeping up the suppurative process, until entire relief should be obtained. Of course the discharges were followed by much relief, and diminution of the swelling. Three weeks passed by, and the patient became *impatient* to resume his business—though there still existed a slight induration of the parts around the walls of the trachea, and particularly in front. There was also a disagreeable traction of the muscles in every effort at deglutition. This was very readily seen when the neck was uncovered, particularly in the action of the depressers of the os-hyoides, and larynx. The patient was now directed to anoint the part with ung. Iodine comp. diluted with lard. He could not endure, however, more than two or three applications, and he preferred looking after his business, keeping his neck well protected with a scarf, and anointing occasionally with opodeldoc. In a week after this I was called to him again—the soreness and swelling had increased, and the parts were very much indurated. Some cotton was now wet with equal portions of Granville's lotion and whiskey, and applied to the part, with a view of exciting speedy counter-irritation. In a few minutes the skin was very much reddened, and in one or two places vesication had occurred. Warm bread and water, and bread and milk poultices were continued, and there were evident marks of suppuration apparent in a few days. The tumor soon began to point, just in front of the larynx, and in a few days more, was opened with an abscess lancet. The discharge was profuse, and gave immediate relief. It was kept up for several days, and the opening healed. The suppurative process continued, and a discharge again occurred, without the use of the lancet. The surrounding induration yielded, and the patient convalesced rapidly. He is now able to go out and pursue his business.”—*N. J. Med. Rep.*

From the "Boston Medical and Surgical Journal."

## ANCHYLOSIS OF THE JAW OF THIRTY-FOUR YEARS DURATION.

The following interesting case we copy from the above well known periodical.

Mr. ———, a native of Scotland, aged 50 years. At the age of 11 years he was apprenticed to the merchants' marine, from a Scottish port. Whilst on the homeward-bound voyage from the West Indies, in 1813, the vessel on which he was aboard was pursued by a French frigate. The chase was long and exciting, and every effort to increase the speed of the vessel, to effect an escape, was of course made by the captain. For this purpose, various practicable alterations were effected in the vessel's trim, and every "stitch" of canvass that could be brought to bear was put into requisition. The lad was sent aloft to "loose" the "main-royal sail," when from a heavy plunge the ship made in a high running "head sea," and a squall of wind simultaneously striking her, the "royal" mast was "carried away," i. e., snapped asunder, and precipitated him "in-board" of the long-boat below; breaking both his legs—one a compound fracture of the fibula and tibia midway between the ankle and knee, and the other a compound fracture at the knee-joint, driving the *patella* almost through the joint. Both arms were broken, and three ribs on the left side, and the left *clavicle*. The teeth were forced through the lips, in consequence of his face striking against the inside of the boat; but no other injury was inflicted on the head, otherwise than that of insensibility arising from the general concussion and shock received by the sensorium and nervous system. The vessel escaped from the grasp of her pursuer, and in the absence of better assistance, the ship's carpenter, for the nonce, doffed his office of surgeon to "*sprung*" masts and yards, solutions of continuity in seams, and strictures in the pump's urethra, and devoted his skill to carpentering fractured bones, and "fishing" the broken limbs of the unfortunate lad, and thus with "home-made" rough "splints" he placed the fractured limbs in position, first having removed, with his chisel! the comminuted portions of fractured bones, and, to the best of his abilities, bringing together the flesh by the adhesive qualities of plaster comprised of tar-pitch and canvass. He then proceeded from the ship's "medicine chest," and strict diet, to place him under rigid "antiphlogistic" treatment, and he was in every way—using his own words—"well cared for."

Several days after, the vessel made the port of Portsmouth, Eng., and he was taken ashore, to the marine hospital. The limb, implicated with the compound fracture at the knee-joint, was amputated between the middle and lower third of the thigh—and the other fractures treated *secundem artem*, with the view, if

possible, of ultimately saving them. So absorbed were the surgeons with the numerous fractures, and the desire to save his life, that they altogether lost sight of its important portal, the mouth—further than bringing together and preserving in apposition the wounds of the lips. The muscles and ligaments of the jaw daily contracted but so gradually, that even the patient himself, overwhelmed as he was with sufferings, *did not perceive* the advance of his terrible affliction, until he discovered that he could not, upon the return of his appetite, open his mouth to partake of food. His jaws were firmly fixed, and the teeth closely locked upon each other. Treatment and experiment alike failed to overcome this additional calamity, and he was, in due course of time, in all other respects “discharged cured.”

After the war he emigrated to this country, and for many years has been a resident of this city. Several years since, on the eve of Dr. Mott's departure for Europe, he consulted this gentleman as to the possibility of obtaining relief by an operation. Nothing was done, and tumefaction and suppuration supervened. He was, in consequence of the successful operation which I had performed, in re-placing, by artificial means, the loss of large portion of the maxillary bones and teeth (from a gun-shot wound) in the case of Lieut. S., U. S. N., advised to consult me, with regard to any chance of success attending an operation for securing “artificial joints” to the inferior maxillary bone.

Having examined the case, I advised him by no means to submit to an operation of this kind; that such an operation had been performed several years since, by an eminent surgeon, upon the jaw of a young lady\* similarly affected, with the most disastrous results; that she had applied to me for relief, and the only solace she ever received for her sufferings was the overcoming the frightful deformity of an *absent cheek*, which was successfully and beautifully accomplished with an artificial one made by my friend, Dr. Smilie, dentist, of this city. The maxillary bones, gums and teeth on one side, were completely exposed, her jaws locked, and the teeth rigidly closed and fixed together, thus presenting the appearance of a grinning skeleton, and on the other exhibiting all that was youthful, healthful and beautiful. The failure of youthful resources to secure artificial joints, did

\* The anchylosis affecting the maxillary bone of this lady was superinduced from the cauterizing the inner surface of the mouth, during her illness (fever, cancrum oris). The surface sloughed, and produced an angry ulcer. The cauterizing was continued, and the consequences were, that the whole of the left cheek was corroded entirely away from its junctions with the maxillary bones, and the attempt of an eminent dentist, with her surgeon, to extract a molar tooth, fractured her jaw, which, in connection with the disease, was the remote and exciting causes of the anchylosis. The operation for producing artificial joints, was performed by cutting through the ascending portions of the jaw, just below where the condyles and coronoid processes bifurcate. From the account of the case given by the young lady, I could not rightly comprehend what treatment she had received, or what cause was assigned for the failure.

not in this instance warrant a similar experiment upon those of age.

I found his teeth, as already stated, firmly locked together; the gums tumefied and vegetating, pus oozing from their edges and the alveolar dental periosteum, the breath feverish and fetid. I proceeded to remove the several teeth after their order, two superior and two inferior posterior *biscuspids* on either side, four superior and four inferior *multicuspids*, and the two superior lateral *incisors*—the two central teeth having originally been extracted for the purpose of enabling him to speak and partake of “spoon meats,” upon which he has subsisted for thirty-five years.

I left in the mouth two superior and two inferior *cuspidati*, the same number of *bicuspids*, the four inferior *incisors*, and the four *sapientia* teeth. The removal of the above teeth gave him great relief. It enabled him to cleanse his mouth upon the inside and outside of the teeth; it gave ample room to the tongue, both for speaking and crushing the food, that he was in the habit of taking, against the roof of the mouth, and, to his astonishment, improved the sense of taste, to such an extent that he conceived—until explained to him that closed jaws materially affected this sense—that the “character of his food had changed.” The tumefaction and suppuration of the gums and periosteum subsided, as did also the fetid odor of the breath, and the digestive powers recovered from the prostration superinduced by these exciting causes. He was most anxious, at the time, that I should extract *all* the teeth from his head, particularly the lower incisors, that he might enjoy still *more* space in his mouth for his “cribb’d” tongue. I should have complied with his desire, but that the position in which his jaws were fixed, and the *tout ensemble* in which the maxillary apparatus was placed, and prognosis, did not indicate nor warrant such a mode of procedure. It is a well-demonstrated fact, that the inferior maxillary bone undergoes various changes, more so than any other bone of the human frame. At birth, the angle of the jaw is obtuse; at maturity, when all the teeth are developed, it forms a right angle; and as the teeth make their appearance, and are severally lost to the animal economy, so does the jaw undergo material physical change, either with the addition, or from the loss of each tooth. I prognosticated, therefore, that should I extract *all* the teeth, the muscular contraction would continue, and however firmly the *condyles* of the jaw might be ankylosed with their glenoid cavities, that the immense power of the maxillary muscles, and the constant strains upon them, would draw the *ramus* of the jaw upon the superior maxillary bone, and anteriorly close the jaws altogether, so as to deprive him of the ordinary functions of the lips (from their compression upon each other,) and the mouth; and I did not extract the lower incisors, because it would have deprived him of this

"dam," as it were, to retain the saliva, as well as prevented the forming of the *dento-lingual* articulations of the voice.

His second visit to me proved the fortunate prognosis that I had made upon his case. The muscles *had* contracted so as to force the remaining teeth, which I had left in the mouth, for the purpose of keeping the jaws apart, considerably out of their perpendicular lines of position. The *dentes sapientiæ* were now decayed, and their spiculated surfaces were not only forced into each other, but were also forced over the *mylo-hyoidean* line of the jaw into the throat, contracting its capacity, and pressing down the tongue and the tonsils, and thus materially affecting the function of deglutition. Tumefaction and considerable inflammation of the gums and palate were present, the pendulum of which was elongated and exceedingly troublesome. He was much depressed in spirits, feverish, and complained of neuralgic pains over his temples, in the "balls" of his eyes, thence to the back of his head, down his arms, and to various parts of his body, and was oppressed with the feeling that he must die of "lock-jaw" or suffocation. "One of these times, I shall give one struggle, and it will be all over with me," were his desponding remarks. He having great confidence in me, my encouraging explanations that *tetanus* and his "lock-jaw" were totally and vitally different, relieved his mind and feelings from the oppression that was weighing heavily upon them. I then extracted the four "wisdom teeth" and one inferior canine tooth, which had been forced *forward*, out of its line of position, by the pressure upon it. I snipped off considerable portions of the tumefied and vegetating gums\* near the tonsils, and applied powerful astringent washes to the mouth, and administered alteratives internally. His natural "spirits" have recovered their buoyancy, and his difficulties (for the present) are at an end—expressing himself yesterday, when I dismissed him, as "altogether another man."

Should the contraction of the maxillary muscles continue so as to draw still upon the jaw, I shall endeavor to overcome the difficulty and prevent it, by forming a wedge of gold upon either side of the mouth, in the shape of an hour-glass, the ends, of course, to be nicely adapted to the gums on the dental surface of the maxillary bones, somewhat after this manner,  $\overset{\circ}{\underset{\circ}{\times}} \overset{-1}{\text{---}} \overset{-2}{\text{---}}$  No. 1, 1, representing the ends of No. 2, letter X, or hour-glass, to be placed perpendicularly between the superior and inferior maxillary bones; by which means I should hope to keep them apart, without local or constitutional irritation.

A. C. CASTLE, M. D.

New York, May 19, 1848.

Surgeon Dentist.

\* I did wrong to snip off the vegetating gums. It was the cause of much trouble both to myself and patient.



# THE DENTAL NEWS LETTER.

Vol. II.

JANUARY, 1849.

No. 2.

For the Dental News Letter.

## PLUGGING TEETH.

*Messrs. Jones, White & Co.*

GENTLEMEN—The favorable reception that my first communication has received, is a sufficient apology for me to furnish you with a continuation of my last article on *The Formation of the Cavity for Plugging*. For this purpose, numerous small cutting instruments are necessary, not only to approach all parts of the cavity of decay, but to enlarge it in any desirable direction; for it is not to be presumed that the freaks of decay will always form a cavity best suited to retain a plug; besides, gold foil cannot be consolidated, unless as fast as placed in the cavity, it is embraced by its parieties more and still more firmly at every effort with the instrument. Yet it is not indispensable that it should do so in every direction, or when only the first portions of the plug are introduced. A very good and simple method for a young learner to adopt, when he has dressed the margins of the cavity, is to lay a straight instrument across them, and then to cut down at right angles from it; in this way he is sure to give the cavity a proper shape; in short, it is the business of the dentist to shape the cavity to suit himself, so far as it can be done without injuring the tooth. A cavity best suited for plugging is where the parieties run from the orifice to the bottom, parallel to each other; and this character should always be obtained as far as practicable upon the coronal extremities of the teeth, especially when they are disposed to wear down. What are commonly termed the hatchet-shaped, and scoop or hoe-shaped instruments, of different sizes, bent at different angles, are necessary; they can be obtained ready made, but every dentist should be capable of shaping the points and tempering them to suit himself; it is impossible for the instrument maker to judge of and produce the various niceties of temper and shape which these instruments require. Small flat drills, for drilling catches for the plug upon different parts of the cavity where they can be applied, are also requisite. The following is a very easy and effectual method of tempering this kind of instruments—first file and bend the instrument suitably, then heat it a very little above a cherry-red in the flame of a spirit lamp,

and suddenly plunge it into cold water, (or sealing wax, which is perhaps better,) placed close enough to the point while heating, to prevent it from cooling much in passing from the flame to the water; now it is as hard as it can well be made, and to exert much force by bringing it in contact with any hard substance would break it almost as easily as glass, to prevent which, polish one side of the point upon a stone, so as to distinguish the slightest tinge of change in color; then place the neck of the instrument again in the flame, with the cutting edge jutting through about half of an inch, and impinging upon a piece of cold steel; held in this position a few moments, the polished surface of the instrument will be observed to change to a light straw color, which will deepen until it turns blue; when this light straw color reaches the point of the instrument, it should be again plunged into cold water; now polish the instrument, and it is fit for use. The reasons for this process of tempering are obvious; it is desirable to make the neck, and especially the angles or curves of the instrument, of a light blue color, which is spring temper; as it is important that it should yield to pressure without breaking, and that it can be slightly bent at pleasure to suit any temporary purpose, and at the same time the cutting edge should be very hard. As the edge is much thinner in most cases than the neck, the same amount of heat that would render it light straw color, would not be sufficient to reduce the neck to a blue, but the cold steel in contact with the point conducts off the heat whilst sufficient can be applied to the neck to turn it blue. In this way the temper can be so regulated that the edge can be extremely hard, while the instrument will bend up to an eighth of an inch of the point; so that we can cut the hardest tooth substance, as with a diamond set in steel, without its breaking.

*Characteristics of Decay.*—On this subject authors differ very widely; and while we do not wish to be understood as attempting to settle this difficult question, still a few remarks upon some of its properties, &c., may not be out of place; it is asserted by some that every particle of *decay* must be removed from the cavity preparatory to plugging, (to this we most heartily assent;) and by others, that every vestige of *colored* substance must be removed, that the tooth may present a white and healthy appearance! Now whiteness is not always a healthy sign, as sometimes the softest decay is whiter than other parts of the tooth; nor again is a black appearance always a sign of decay. How is it with the darkened and polished surface of stationary decay, so called, and which is more dense than the sound tooth? The tubuli having filled up with some kind of matter rendering the dark spot frequently less destructible than the surrounding tooth substance. Examine such cases after being stationary for years, as is the case sometimes, and when decay again commences, it is either by a white and softened margin, or by a whitened centre. While



tooth substance is changing from a healthy state to a state of decay, it is not black, but white, brown, or yellow, as the case may be ; but it often becomes black after it has partially decayed. The tubuli take up fluids which *become* colored, or coloring *matter* is imbibed from the decay without the structure of the tooth being at all broken up ; that they are capable of doing so, is proven by immersing a tooth in the tincture of red saunders, which will color it as dark as dark mahogany ; but the tooth never turns white without a loss, or breaking up of structure ; so it will be seen that color is not an invariable criterion to judge by, whether a tooth is decayed or not ; but texture combined with opacity and discoloration is, except when we approach the cementum, *it* being about the same texture as partial decay. It is well known that in many cases where the decay is discolored, a dark line is observed running along the tubuli, from the decayed portion, almost as soon as it is through the enamel, down to the pulp cavity. I will cite a single case as an illustration. A gentleman who had been residing for some time at New Orleans, accompanied his sister to my office, who was having her teeth operated upon, and while there, expressed a regret that he could not have his teeth plugged also ; and upon inquiring the cause, he informed me that the nerves always had to be exposed by cleaning the cavity, and it was so painful that he could not bear it, and even if he did, his teeth became diseased at the roots, and had to be extracted. I requested him to allow me to examine them ; he assented ; and, upon examination, I remarked at once that I could plug them without exposure of the nerve by cleaning ; I convinced him that the dark portion of his tooth was as hard as the white, and to remove that which had lost its density of structure was sufficient ; this has been done, and many valuable teeth saved for years. This darkened character of the tooth substance is not uncommon in tobacco chewers, and it is obvious that as the tubuli of the tooth run from its periphery towards the pulp cavity, that when the impervious enamel is removed by any cause, that they will take up coloring matter of any kind, and become discolored. Others assert, again, that partial decay may be left in the tooth, that decay will not go on if the cavity be plugged solid. It is not impossible that the partially decayed bone will not become hard again by infiltration of calcareous matter from the pulp, in the same way that the cementum is formed ; but it is not often true that decay will not go on when a tooth is plugged in this way, because there are sufficient heat, moisture and air pervading at all times in the tooth to favor chemical decomposition when a nucleus of decay is once formed, yet decay may not be as rapid as when the tooth is not plugged. Now, it is almost needless to say that the instruments used for cleansing and forming the cavity should be as thin and sharp as possible, and have sufficient strength to bear slight pressure, because the decay, as well

as the sound bone, is sometimes exquisitely sensitive to the touch,\* and to attempt to prepare a cavity with a thick and dull instrument in such cases, would excite undue and unnecessary pain; besides, the sharper the instrument, the more readily the difference in the texture of the decayed and sound bone is distinguished. A small lock of cotton, lint or napkin should be held in the hand, to wipe the decay from the instrument as fast as it is taken from the tooth, as well as to wipe it from the cavity and from about the tooth, in order to keep it out of the mouth as much as possible.

*Material for Plugging.*—Great care is necessary in selecting, as well as for preserving, material for plugging. It should be kept in a dry place, and a weight placed upon that which is not wanted for immediate use, in order to prevent the air from getting in contact with it, as it will render it more or less brittle and dusty; by leaving it exposed to the air, it loses a peculiar freshness, which renders it less capable of being firmly packed. What is commonly termed No. 6, is better suited, perhaps, for general use than any other thickness, because it is not too stiff or strong to be packed into a cavity where the parieties are weak, nor too light to make a very hard and compact plug in a cavity better supported. But we apprehend a great deal may depend upon the habit of the operator, because some prefer No. 4, and others 15 or even 30 grains to the leaf. It is generally asserted that the lighter leaves should be used for the small cavities, and the heavier leaves for the larger ones; but we are in the habit of using the thicker leaves for the smaller, and the thinner leaves for the larger cavities, for the reasons given above; the lighter leaves can be firmly packed with less force, but they require a longer time than the heavier ones, and when the cavity is very large the parieties are weaker than when it is small. It is believed by some that gold cannot be used with the same success when the cavity is badly shaped, or the tooth frail, or when there is a very small hold for the plug, as tin; we must confess we were once of the same opinion also; but that opinion had been partly formed by consulting the views of others, and from transient experience; but practice, and a better knowledge of packing gold, have led us to a very different conclusion. It is obvious that gold is best, under all circumstances, and that tin should not be used except as a temporary filling, or a matter of economy. Tin may be rendered impervious to air and dampness, but it will corrode in most mouths, unless it comes in contact with the food in chewing, and then it rapidly wears away, as it does not become hard by packing or under pressure, as is the case with gold; in

\* We do not intend to give any directions with reference to the treatment of this condition of the tooth, or the treatment of the pulp, as it is too important a subject to be treated without a due consideration of its physiological and pathological conditions, to do which would interfere too much with the arrangement of the present papers.

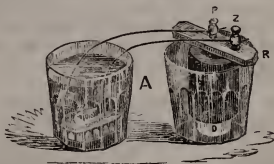
other words, gold will become hard and brittle by hammering, and tin will not; this is the principal reason why gold can be more successfully employed in a cavity where there is a very small hold than tin; because it is clear that a small hold with a hard metal, and one that can be made harder proportionate to the pressure applied to it, is more secure than it would be with a softer metal; and that tin "forms a kind of union with the tooth" differing from gold, is too ridiculous to be more than mentioned; and that the walls of the cavity are not strong enough to bear the pressure of consolidating gold, is equally so; if the tooth will not bear much pressure, use thinner leaves. We are sure that No. 4 can be firmly packed with as little pressure as can tin; but the gold must be well prepared, not only of uniform thickness, but pure, malleable and properly annealed; all this requiring care on the part of the one who prepares it.\*

J. D. WHITE, M. D.

For the Dental News Letter.

### ELECTRO-GILDING.

"Excelsior" being the motto of the dental profession of the present day, improvements have been rife of late years; among others may be found the gilding of temporary sets or parts of sets on silver plates. As many may yet be unacquainted with this collateral branch of our art, we offer the following directions for electro-gilding, which, although more particularly relating to artificial or plate work, will be found to apply equally well to other articles. The facility with which the whole process may be mastered, will, we trust, be an inducement to try the experiment. Our directions, if complied with, cannot fail to produce the most satisfactory results.



The battery best adapted for gilding small objects, or for a dentist's use, is Grove's; it will be found easy to be procured or constructed, and accompanies any electro-magnet, under various modifications. It consists, as seen in the cut, of a glass vessel,

\* We use the gold of Mr. Charles Abby & Son, No. 22 Pear street. and feel it a duty to say that it is more uniform in its peculiar qualities than any other which we have ever tried. It is but fair to add, however, that we have never tried that manufactured by Jones, White & Co.

A; a zinc cylinder, Z; a porous tube, forming a diaphragm, D; a strip of platinum, P; over the rest, R, are seen two thumb screws to connect the poles of the battery with the gilding solution and the article to be gilded.

To put the battery in operation, place the porous vessel, D, in the glass one, A, fill the porous vessel, D, with good *nitric acid*, and the vessel, A, with water barely acidulated with a few drops of *sulphuric acid*; and now, by immersing the cylinder of zinc and the platinum, held in their respective places by being fastened to the rest, R, across the glass vessel, the zinc, we say, being immersed in the very dilute sulphuric acid, and the platinum in the pure nitric acid, we have the battery ready for action, and merely requiring to be connected with the solution employed in gilding, and the article intended to be gilded, to form the circuit.

The gilding solution should be contained in a glass or porcelain vessel, of shape suitable to receive the article intended to be gilded; most probably a tumbler will answer the purpose. The space between it and the battery should be as small as possible, so as not to interfere with the intensity of the battery. The wire connected with the platinum, P, by means of one of the thumb screws, is to be armed with a piece of pure silver or gold wire or plate (soldered to the copper wire) so as to furnish a fresh supply of the oxidated metal to the solution.

To put the battery in operation, it now suffices to bring the object upon which we wish to obtain a deposit in contact with the wire connected with the zinc, Z, as seen in the above cut.

#### PREPARING SURFACES FOR ELECTRO-GILDING.

The first point to which we must direct the attention, and it is one of such paramount importance that, unless duly regarded, all subsequent operations will be vain, is the cleansing the surface of the article on which the metallic coating is to be placed. Unless this is effectually done, it is in vain to hope for perfect adhesion between the metallic base and the deposit; the latter will rise up in blisters where the surface is not properly prepared, and easily be rubbed off.

There are two methods of preparing metals for the reception of other metals—the wet way and the dry way. The latter is decidedly the best; but as it cannot be adopted in every case, we will describe both modes. The main intent of cleansing is, that the contact between the two metals may be perfect, and it effects this by removing grease and all extraneous matter, especially the oxides.

#### CLEANSING BY THE DRY METHOD.

The advantage of the dry process over any in which moisture has been employed, is that in the latter case several seconds, at least, must always elapse between the act of removing the article from its last liquid bath, and placing it in the solution of the

metal to be deposited ; and during this short interval the article, or some portion of it, very frequently undergoes an alteration, trivial indeed, but still an alteration, by the action of the air, which produces a film of oxide, infinitely thin it is true, yet quite enough to militate against the success of the experiment, as regards permanent adhesion. Therefore wherever the dry process can be adopted, it is decidedly the better.

The dry process is merely the operation of scouring after stoning the article intended to be gilded, with very fine powder of pumice stone, emery, charcoal or tripoli and clean brushes, utterly free from grease. It must be remembered throughout that grease and oxide are the great enemies to be expelled ; and, therefore, especial care must be taken to avoid contact with the moisture of the hand, which is of a nature to produce either. We must also mention here that the higher the finish the handsomer will the coat of gilding be ; and that all the scratches allowed to remain on the plate, far from being obliterated, will be rendered much more visible.

#### CLEANSING BY THE WET METHOD.

The solutions employed may be divided generally into two classes, the acid and the alkaline ; the action of the former is directed more towards the removal of oxides ; that of the latter to the removal of grease. As a rule, we would always follow the use of an acid bath by an alkaline, having first washed away the acid in several waters ; and this may be done, whether the operation commences with an alkaline bath or not.

An effectual "pickle" may be made of—

Sulphuric acid,	-	-	-	-	-	64 parts.
Water,	-	-	-	-	-	64 "
Nitric acid,	-	-	-	-	-	32 "
Muriatic acid,	-	-	-	-	-	1 "

The pickle is used by tying a wire round the article, and immersing it a second or two ; the action is very energetic, and of course must not be continued long. A mere bath of dilute nitric acid is often used. Of the alkaline solutions are caustic soda, or solution of soda and ammonia, or caustic soda and sal ammoniac ; or the articles may be boiled in a solution of common soda or potash, which is a very good method of cleansing them. Whatever solution is used, whether acid or alkaline, fresh water must not be spared for rinsing off all remaining traces, and the article must be dried for immediate use by pouring over it *boiling* distilled or rain water ; or if the process of deposition is not to be commenced immediately after being rinsed, it may be buried in hot or cold box-wood saw-dust until required. In addition to the detergent methods already given, an ancillary means, which has been found effectual, depends upon the fact that metallic and other surfaces, after exposure to the air for some hours, become

coated with a film of air so intimately, as to retain it even between themselves and any metal deposited upon them. It is found that the presence of this natural film very materially operates in preventing adhesion between the plates and the deposit; whereas, in the absence of the film, unless its place has been supplied by something else, (oxide or grease,) other things being in order, the *two* will effectually become *one*. Carrying out this principle, the boiling alkaline solution and the boiling water answer a double end; and hence are very effectual means of promoting perfect union between the metals. Heat operates still more favorably in causing the expansion of the metal, as we shall have occasion to mention when recommending its adoption in the process itself of electric deposition.

#### AMALGAMATION TO PROMOTE ADHESION.

This last method in the preparatory stage is of great avail in ensuring a successful termination to the experiments. After the articles are thoroughly cleansed, according to the instructions just laid down, they are dipped into a solution of proto-nitrate of mercury; when taken out, they are washed in abundance of water, and are then rubbed with leather, in order to promote the equal spread of the mercury. These operations are repeated until the whole surface is well coated with mercury. The ultimate character of the metallic deposit depends on the surface given to the mercury: if the employment of the leather is only such as is needed to effect the more equal diffusion of the mercury, the surface is dull or dead, and so is the deposit; whereas, if brisk friction is applied, and the mercury receives a good polish, such will be the character of the metal thrown down. By adopting this method of giving a mercurial coat as the foundation for the plating or gilding, a double advantage accrues; the close adherence between the metals is ensured,—and a coating of gold of any thickness may be thrown down. The mercury is subsequently driven off by heat, either heat from a spirit lamp, gently applied for the purpose, or the heat employed in some of the operations by which the work is finished.

Considerable advantage accrues (as we have before stated) in all cases of the deposition of metals, where adhesion is derived by the use of heat. It expands the baser metal, and so far expands its pores that the subsequent contraction, consequent on the effect of common temperatures, is likely to operate favorable in binding the metals together. The mode of heating the solutions will depend entirely on the circumstances under which the experiments are conducted. If a hot stone or sand bath be at hand, the object is soon accomplished; but in most cases the simplest plan is to use a lamp and a glass, or other retort, and convey the steam by a glass tube into the metallic solution.

The length of time requisite for plating and gilding, is entirely



dependent on the nature and uses of the article. The thickness of the deposit, of course, depends on the duration of the action. For articles not exposed to wear, a few minutes' immersion may be enough; for sets of teeth, spoons, forks, &c., subject to much wear, six or eight, or even more hours; always taking care to watch the process at times, in order to prevent the occurrence of black lines; whenever they appear, the action of the battery must be retarded by adding more water to the dilute sulphuric acid solution, or pouring some out, so as to reduce the power of the battery, and the article undergoing the process must be taken out of the metallic solution, washed in water, and should the black lines still appear, be rubbed with wet sand, using only the fingers for the purpose, or otherwise the sand would scratch the plate. The black lines having thus been made to disappear, the process is allowed to go on until a sufficiently thick deposit is obtained. Large objects, or those which are subject to a long action, should be occasionally withdrawn and their position altered, so that a uniformity of deposit may occur.

The proper color is given to the surface of electro-gilding by covering it with *gilding wax*, and heating it till the mass begins to smoke. Gilding wax consists of equal parts of the powders of saltpetre, sal ammoniac, sulphate of iron and verdigris, mixed with melted wax. This operation removes the brassy appearance, which the surface often presents, drives off the mercury employed in the preceding operation and gives the rich gold color, on which the beauty of the work depends.

#### TO REMOVE THE GILDING WAX.

Ordinary plated goods are finished off by polishing and bur-nishing.

#### SILVER SOLUTION.

Take one pint of pure rain or distilled water, add to it two ounces of the cyanuret of potassium, shake the bottle occasionally until the latter is entirely dissolved, and allow the liquid to become clear; then add a quarter of an ounce of oxide of silver, which will very speedily dissolve. The dissolution may be hastened by heat, and, after a short time, a clear transparent solution will be obtained.

#### GOLD SOLUTION.

Warm a pint of pure rain or distilled water, and dissolve in it two ounces of cyanuret of potassium, as before; then add a quarter of an ounce of oxide of gold. The solution will at first be yellowish, but will soon subside to colorless transparency. This solution should be kept in a blackened or opaque bottle to guard it from the light which decomposes it.

C. A. DU BOUCHET.

Our remarks in the last number of the "News Letter," in reference to the decrease in the use of chloroform, has called forth the following.—ED.

For the Dental News Letter.

### CHLOROFORM.

Having had a favorable opportunity to test the efficacy of chloroform, as an anæsthetic agent, for the purpose of extracting teeth, and performing other minor surgical operations, I would offer the following remarks for the benefit of the profession :

The number of cases operated in, under the influence of chloroform, both at my office in the city of Philadelphia, and that at Gloucester, has exceeded one hundred and fifty. In no case, has injury or inconvenience, immediate or remote, resulted ; and in but two cases have I been unable to produce the desirable impression, owing to the extremely acute nervous sensibility of the patients, and the small dose which I made a point not to depart from, never intending to produce insensibility for a greater length of time than necessary to perform the operation.

The exhibition of chloroform I have found far superior to that of ether or letheon. When properly administered, it never chokes the patient as the latter, nor does it leave any unpleasant sensation, such as headache, &c., but, on the contrary, seems to exercise a happy effect on the mind, slightly exciting and exhilarating.

That I have been able so uniformly to obtain favorable results from the use of chloroform, I would refer to three causes :

1st. Using only the pure article.

2d. Exhibiting only a small dose at one time, thus being able to repeat it for immediate subsequent operations.

3d. Regulating the dose carefully, according to age, conformation, temperament and other circumstances.

When given in an over dose I have once found it to impart to the patient, a female, a pugilistic energy and activity, which, however, had but a minute's duration.

At the time I commenced exhibiting chloroform, I had a tube constructed for its more efficacious inhalation, but soon found the hand of the patient to be the best inhaler, and by placing in it a piece of fine sponge of the size of a walnut, upon which from thirty to forty drops of chloroform had been dropped, I have always succeeded in producing unconsciousness, in from three to twelve inhalations—closing the nostrils of the patient when inhaling and directing them to close their mouth when exhaling through the nose.

In conclusion, I would remark, that I have the greatest confidence in chloroform, when properly administered, but would caution the profession against the indiscriminate use of such a powerful remedy, which, improperly administered, may prove injurious and perhaps in some instances fatal to the patient.

I remain, very respectfully, yours, &c.

CHAS. A. DU BOUCHET.



For the Dental News Letter.

## ARSENIC TO DESTROY NERVES IN TEETH.

We are well aware of the opposition made to the use of arsenic in destroying the nerves of the teeth, and we are as well aware that it can be, and indeed has been much abused. That many teeth have been destroyed by a too profuse use of it, or by its being left in the teeth too long, we will not deny, but we are contending for the skilful use and not the abuse of it.

We have unmistakeable evidence of its efficacy in our own teeth, as well as in the teeth of many patients whom we have treated successfully, and which teeth are now doing good service; and we are satisfied that if many who now oppose its use, would but give it a fair trial, they would change their minds and acknowledge with us, that until something better is discovered we will use arsenic, but with all necessary care and discrimination of course; and that they may do so, we give our practice with

## ITS MODE OF PREPARATION.

Pure crystallized arsenic, - - - - 10 grains.

Sulphate morphia, - - - - 15 "

Kreosote, sufficient to make it of the consistence of cream.

The arsenic should be ground in a glazed or glass mortar (a wedgewood mortar will not answer) to a fine powder, then add the kreosote and continue to grind for at least twenty minutes, when the morphia may be added, and the whole ground until all are intimately mixed. If the arsenic be ground fine enough it will be held in suspension, as it is very important it should be. The preparation should be kept in a glass bottle with ground stopper. If closely kept it will improve by age.

## ITS MODE OF APPLICATION.

After exposing the nerve, take a small pledget of cotton, about the size of the head of a pin, on the point of an instrument, and dip into the preparation and apply to the nerve, then place more cotton on top of it to keep it there securely, and enjoin upon your patient to see you in from twelve to twenty hours. If they cannot do so, don't apply it. After the expiration of the above time, you can generally, with a soft pliable probe, made sufficiently small, remove the entire nerve with little or no pain. If, however, it should be very painful, saturate a piece of cotton in ether and apply it, and in twenty-four hours you will be enabled to remove the nerve and prepare the cavity, then fill up the cavity with cotton and let it remain for a few days, after which plug the nerve cavity alone, but not to the extremity of the fang, say two-thirds the length of the fang, and in two or three days more finish the operation by excavating and plugging the crown. There are cases, however, where it will fail, such as where the tooth is not perfectly developed, and where there is an enlargement of the

foramen at the end of the fang, in which case it may produce an inflammation of the lining membrane; if this result, and the inflammation continue, the tooth had better be extracted, but these are rare cases. We never apply the preparation more than once, but if properly applied, once is sufficient.

If a large molar tooth be treated and, after the completion of the operation, there should be any pain, or a sense of fulness in the gum, we always advise the application of a couple of leeches, which generally gives immediate relief. Our manner of using it may be modified, of course, as experience dictates, but in the main will be found to be correct.

We have thus given as full a description as necessary, to enable any one to try it, and we would be pleased to have the experience of others on the subject.

R.

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For the Dental News Letter.

## REPORT OF THE PROCEEDINGS OF THE PENNSYLVANIA SOCIETY OF DENTAL SURGEONS.

An adjourned meeting of the society was held at the Hall of Pharmacy, on Tuesday evening, December 5, at 7 o'clock, for the election of officers, when all the former officers were re-elected, and the following gentlemen as examining committee—Dr. J. D. White, Dr. E. Parry, Dr. Jas. Fleming, Mr. C. C. Williams, Mr. F. Reinstein.

After the election, the regular meeting of the society was held. Dr. E. PARRY, President, and Mr. C. C. Williams, Secretary pro tem.

Minutes of previous meeting read and adopted.

The committee on Cabinet and Library reported progress, and were continued.

A communication from L. Gilbert was read, in which he returned his thanks to the society for their favorable report on his central cavity plate.

Mr. W. R. White was now elected a member, after which Dr. E. Parry read an Essay on Third Dentition, relating a case of much interest, which he had watched with great care. After which, oral communications being in order, Dr. J. D. White followed with the relation of several cases which had come under his notice somewhat of the same character. He doubted, however, that all cases were not third dentition that were so called, and showed clearly, by the cases he had cited, that they were reproductions by the same organs, or multiple developments, and not third dentition, or a removal of the powers, but that when late in life teeth had been erupted, then it was third dentition, or a renewal of the vital forces.

Mr. C. C. Williams followed on the same subject, stating a case where a hard substance was found in the gum, which would

not yield to pressure, and on examination a large molar tooth was found lying longitudinally along the jaw.

Amalgam fillings were next discussed at some length; after which the attention of the society was called by Dr. Parry to a full set of artificial teeth exhibited to them, and manufactured by Jones, White & Co. Many remarks were made thereon, when, on motion, a committee was appointed to examine the article, and report at the next meeting. The committee were Mr. C. C. Williams, Dr. J. D. White, and Mr. F. Reinstein.

On motion, adjourned.

M.

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For the Dental News Letter.

*To the President and Members of the Pennsylvania Association of Dental Surgeons.*

GENTLEMEN—Although I am far removed from you, yet I often think of the members of my own profession, and of that society of dental surgeons in my native city, in whose welfare I feel a lively interest. And most ardently am I desirous that every American dentist should know what is known, and be able skilfully to practice every valuable improvement of this age in which we live. And although I may have but little to impart, yet that little is at the service of each and all the members of my profession; and gladly would I hail the day that should make all that is sound in science, and valuable in art, common property.

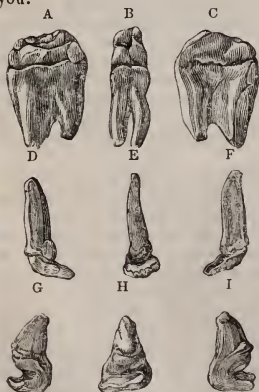
In a recent visit to London, I was not only greatly gratified, but derived much valuable information, in visiting several of our London professional brethren. Such intercourse with skilful members of the profession I believe to be a most valuable means of improvement. The American Society of Dental Surgeons was founded with special reference to the advantages of association; and the improvement to be derived from intercourse, and the anticipations of the most sanguine of its founders, have been fully realized.

The same motive prompted the few members of the profession who met in convention in Philadelphia, in 1845, for the purpose of organizing a State society, under the name and title of the Pennsylvania Society of Dental Surgeons. It was formed, and has succeeded admirably, notwithstanding many members of the profession thought the formation of such a society impracticable. The advantages of association to the dentist are no doubt as great as they are to the physician or the agriculturist. In these associations, by the discussion of subjects connected with the profession, and by the contribution of each according to his ability, by the comparison of the different modes of practice, and the making known all the new discoveries and improvements, we shall place the profession on more commanding ground, and better serve the generation in which we live. These are the feelings with which

I am actuated, and I shall gladly, as time and circumstances allow, contribute my mite of material to the common stock.

While in London, I called on Mr. Leonard Keocker, one of the oldest dentists in that city. Mr. Keocker formerly practised in Philadelphia, where he was much esteemed. He removed to London many years ago. He is well known to the profession in Europe and America both as an author and a practitioner, and to him the department of dental science is indebted for some of its most valuable contributions. He has devoted himself to his profession with great energy, and has attained much skill in the treatment of dental and maxillary diseases, and as a dental pathologist and practitioner, he ranks among the first in Europe.

Mr. Samuel Cartwright, who is well known to the profession, has retired from practice, after many years of great usefulness, leaving a very valuable business to his nephew, Mr. George, his former pupil, and for many years his assistant. Mr. George, who has been a lecturer on dental surgery for several years in the University College, is esteemed as one of the most scientific dentists of Europe. His collection of anomalous and pathological specimens is extensive and valuable, and the readiness and willingness with which he communicates to others his great fund of valuable knowledge, is characteristic of the man of science, and renders him a most valuable member of the profession. He very kindly presented me with the casts of several teeth, drawings of some of which I send you, hoping that they may be of interest to you.



*a, b, c*, are three views of an upper dens sapientia, which forced its way between the first and second molares. It is very much flattened and considerably wider than usual. *a*, is a posterior view; *b*, buccal side; *c*, anterior surface.

*d, e, f*, are three views of a lower lateral incisor, with the crown bent nearly to a right angle with the root. It has the appearance of having been broken and reunited.

*g, h, i*, are three views of an upper central incisor, which developed itself much within the dental arch. The crown is bent nearly double. *g*, and *i*, are side views; *h*, a back view.

Since my residence here, I have made some additions to my collection of anomalous and pathological specimens; copies of

some of which I shall take pleasure in sending you at some future time.

Wishing you, gentlemen, both in your individual and associated capacities, every success,

I remain, very respectfully, your obedient servant,

THOMAS W. EVANS.

Paris, December 1, 1848.

The above paper we are pleased to receive, and hope it may be the beginning of a series which shall be interesting and instructive. It is, as has been seen, addressed to the Pennsylvania Association, but as the society does not meet before February, we lay it, therefore, before our readers.—ED.

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For the Dental News Letter.

### TANNIC ACID.

*Tan* or Tannic Acid is prepared from gall nuts or galls. Galls consist principally of three substances, tannin or tannic acid, yellow extractine and gallic acid. Their decoction has a very astringent and unpleasant bitter taste.

Pure Tannin exists in galls to the amount of from forty to forty-five per cent.

Tannic Acid is a white or yellowish solid, inodorous, extremely astringent, very soluble in water and alcohol.

In cases of excessive hemorrhage after the extraction of a tooth, it seems to answer a better purpose, when applied dry on cotton, than the tincture of galls.

For toothache, combined with sulphate of morphia in the proportion of two parts tannin to one part morphia, and applied dry on cotton, it forms one of the best preparations in use. S.

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### TETANUS CURED BY CHLOROFORM.—MR. BAKER.

"A man had his finger jammed in machinery. On the fifth day he was seized with tetanic spasms: he was conscious, but had lost all power of deglutition and articulation. He was ordered a turpentine enema immediately, and the tinct. cannabis sativa 20 minims every 3 hours. When again seen, Mr. B. ascertained that the attendants could not get him to swallow the medicine, and that ineffectual attempts had been made to give the glyster. Chloroform was now employed, and in three minutes the muscles began to relax, soon after which he sank into a sound sleep. The effect was kept up three quarters of an hour, and when he awoke he was quite rational, and conversed with those around him. His general health now improved, but the finger continuing much swollen and painful, was removed six days after the administration of the chloroform. His recovery was perfect."—*Lancet*.

# THE DENTAL NEWS LETTER.

JANUARY, 1849.

We discovered, but not until we had sent off our entire mail list, that some of the last number, (first No. Vol. 2,) Dental News Letter were incorrectly bound. We regretted that we did not see it sooner, but, as the only amends we can make, we desire to be informed where incorrect copies have been received, and we will return a perfect number.

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*A Treatise on Dental Surgery, and on the Preservation of the Teeth and Gums.*—For the use of families. By C. H. Dubs, Dentist, Natchez, Mississippi.

This seems to be the best possible way for the dentist to gain the confidence of the public, as it exhibits to some extent the author's ability and qualifications. This little pamphlet contains much information, and will prove useful to those for whom it is designed.

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*Ambler's Journal of Dental Operations.*—We have before us a copy of the above useful work, and are pleased to find, as an improvement over those published in former years, that the date is left blank; they can therefore be used as well for any future year as for the present.

For facility, a saving of time, and admirable arrangement for keeping correct dental accounts, it is unsurpassed, and the price, too, only one dollar.

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In reply to a correspondent, we answer, we must receive all communications intended for publication on or before the first of the months in which the News Letter is published.

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In consequence of a demand for palladium for plates, we have ordered from England a supply, which we expect to receive in a few weeks, when, with our stock of gold, platina and silver plate, we will be enabled to supply all tastes.

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We notice a Dentist of Durham, England, has lately used gutta percha, for the manufacture of sets of gums for artificial teeth. The mode he does not give.

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*New York Dental Recorder.*—The January number of this periodical is just out, filled, as usual, with matters of interest to the profession. The manner in which the editor reviews some little works on dentistry is truly refreshing.

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T. J. W.'s communication is just received, but too late for publication in this number. It will, probably, appear in our next.



## CHLOROFORM.

Among the various uses to which this article has been put, (not the least of which is driving steam engines,) we notice that of the cure of delirium tremens. This we conceive to be of some importance, and well worthy attention; but the most important, just now, is the success that has attended its use in cholera in England. Mr. Hill, a surgeon, attached to the Peckham Hospital, England, says he used it in ten cases of epidemic cholera with complete success, six of the patients being perfectly cured, and the four others in a state of convalescence. Two patients sunk, but these were already in the last stage when it was applied. He says:—

“Our habitual mode of treatment is to put the patient in bed between very warm blankets, to give him a glass of brandy in hot water, with sugar and spices; to rub him with warm flannel dipped in a mixture of soap, camphor, tincture of opium, and extract of belladonna; to apply to the whole surface of the body bags filled with hot bran, to put the patient under the influence of chloroform by inhalation, and to keep him under the gentle influence of it as long as the bad symptoms continue to reappear, which often happens when the effect of the chloroform ceases, and the patient recovers his consciousness. It is necessary to give, at short intervals, small quantities of brandy and water for nourishment, arrowroot, clear or with milk, and for drink milk and water, or soda water with a little brandy, to abstain from every thing else in the form of medicine, and trust to the efforts of nature to escape the infections of the disease.”

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As we have had many inquiries in reference to dental chairs, we will endeavor to give a description of the kind we get up, and have for sale. They are made of mahogany or black walnut, as may be desired, covered with scarlet figured plush. The seat being made to raise by a crank extending out from under the chair; thus, any elevation of the seat may be obtained. The back falls by means of two quadrants, both being controlled by raising one; thus, obviating the necessity of going behind the chair to let the back down. The head-piece raises or falls by means of a quadrant, and a part of the head-piece slides upwards and downwards, and horizontally; the latter movement enabling the operator to bring the head of the patient close to his breast, by which he may operate without stooping. They are very strong and handsome, and combine all that is requisite in a dental chair.

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When we commenced the use of the rivet-headed pins in the manufacture of our teeth, we fell into an error, which was in making the heads too large; this we have corrected, and we now think we get all the strength and advantages possible from the use of them.



### PLUGGING FORCEPS.

As an article which is fast coming into use, we may mention plugging forceps. Some of our city dentists are now using them with much success, as they greatly facilitate the packing of the foil, in addition to the firmness which may be given the filling by their use. A set comprises six instruments. We are now getting up a stock of them. We have also a lot of superior "water of ayr" stones, in thin, suitably-shaped pieces, for rubbing down inequalities in plates. Also, Ambler's "Journal of Dental Operations."

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### REMOVAL.

In consequence of the demand for increased room and facilities in our business, besides our desire to be nearer the business part of the city, we have finally consummated an arrangement which we have long desired, and by which we will be enabled to accomplish our purposes.

We are now fitting up a place which will combine every advantage desired, and we expect to move into it in February next. The location is No. 120 Mulberry street, one door below Sixth street. Being but one square from Market street, our western, south-western and southern customers can entrust their orders to gentlemen from their respective places, with the assurance that they will not be taxed in time or trouble to find us.

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### SUCCESSFUL OPERATION AND TREATMENT OF THE ANTRUM MAXILLARIA OF THE RIGHT SIDE.

BY CHARLES H. DUBS, D. S.

*Description.*—The patient, Dudley Hunt, in his 15th year of age, had been afflicted with this terrible disease for eight months without any proper surgical treatment, his parents being under the impression that it was only the effect of a severe cold. He was first brought to me on the 3d of April, 1845, and on examination I found there was considerable expansion of the bones of the cheek and nose of the right side. The palate bone protruded much into the mouth, and the extension of the bones was so great as to produce an entire obstruction of the right nostril, also the swelling so as to raise the floor of the orbit, pushing the eye so far out of its socket as to cause total loss of vision on that side. There was a fistulous opening at the prominent part of the molar bone, of a fleshy nature, from which pus was issuing, and communicated with an opening in the gum opposite to the anterior bicuspid tooth of the right side. There was also another fistula near the canthus of the eye opening into the right nasal cavity.

*Operation and Treatment.*—The first and second superior molars being much decayed in the crown, I extracted them, and perforated through the socket into the cavity, causing considerable

pain; on the entrance of the trocar, a large quantity of greenish and yellow pus discharged freely from the opening, and was assisted by several injections into the sinus, which our youthful sufferer bore admirably, and the flow being very copious, in a little time afforded him material relief. After this, a cool, emollient poultice was applied over the whole surface of the affected part.

*April 4th.*—Very little pain this morning, and the swelling somewhat subsided, but found the external openings, as also that in the mouth, suppurating profusely, and emitting a very fœtid odor. On this account, I injected the sinus with a weak solution of chloride of soda in the proportion of 1 to 12 of aqua rosa, lukewarm. This gave very little pain, and was followed by much coagulated lymph, and hard curdled matter. The emollient poultice of slippery elm was continued, morning and evening.

*April 5th.*—On examination, I found the parietes of the alveolar much decayed, and also the external plate of the jaw. My patient was so timid that he required much persuasion before he would submit to another operation. I now removed the whole decayed part of the upper maxillary, extending from the posterior bicuspid near the socket of dens sapientia, and thus formed a proper outlet. Occasional injections into the sinus were followed by much lumpy and fœtid matter, along with a number of fragments of exfoliated bone. The nasal opening being completely closed, the solution found its outlet through the fistulous opening near the internal canthus. On examining this cavity with a probe, I found a large elastic substance, which I judged to be a fungus mass. This the patient refused to allow me to remove, so that I had to confine myself to the use of injections of a weak solution of the chloride of soda, tannin and myrrh, until the 8th of April, when he consented to submit to the operation. Though the parts were very much inflamed and painful, I cut the fungus entirely away into two pieces, which, together, were about the size of an egg. Much lumpy matter and small pieces of dead bone followed. The injections and poultices continued.

*April 9th.*—Removed a piece of exfoliated bone from the fistula near the canthus, it being a portion of the nasal bone. I also discovered the palatal bones in a state of necrosis; emollients continued.

*April 10th.*—I made an incision from one fistula in the cheek to the other, in the form of a triangle, which enabled me to remove several pieces of bone that were exfoliated, and among them was part of the malar and nasal bones. I now gave injections of sulphate of zinc dissolved in warm water, thrown into the opening, and the lotion of chloride of soda into the sinus, and was much pleased to find the nasal opening pervious.

*April 14th.*—The diseased parts have been discharging freely, and the patient doing remarkably well up to this time.

*April 17th.*—Removed more loose bone from the opening in

the cheek. The suppuration is decreased, the patient is recovering his spirits, and the sight of the eye has much improved. For a great number of red spots on the face, I prescribed a bottle of Sands' sarsaparilla, injections and emollients continued.

*April 23d.*—The diseased parts continue to improve, and the red spots on the face have entirely disappeared.

*April 25th, 28th and 30th.*—Removed more dead bone from the superior maxillary, and palatal bones. Usual injections, &c., continued.

*May 2d, 7th.*—The health of the patient and diseased parts still improving; the latter suppurating freely. On examining the lower jaw of the left side, I discovered a hard tumor directly below the first inferior molar, which was decayed, and very tender and painful to pressure; I therefore extracted the tooth, and the hard tumor vanished in a few days.

*May 8th, 9th.*—The diseased parts continue to suppurate, and on examination I found more dead bone which required to be removed; I accordingly operated with great care, and extracted a large bone, being part of the lower orbital plate, also several pieces of the nasal plate, the os spongiosa of the right nostril, and the os unguis. The injections of sulphate of zinc and tincture of myrrh and the emollient poultices continued.

*May 10th, 12th.*—I found my patient much improved, his eyesight being much strengthened and relieved of pain, swelling quite reduced, the puncture in the alveolar is now quite free, and from which there is a copious flow of pus, and the opening on the cheek has assumed a granulated appearance. For the inflammation of the eye, I prescribed a lotion of sulphate of zinc, acetate of lead, tincture of opium and rose water.

*May 13th to the 18th.*—The foregoing treatment was continued up to this date with decided improvement.

*May 19th.*—To-day I commenced injecting the sinus with diluted port wine, from which the patient did not experience the slightest pain. The discharge of pus is but trifling, and the secretions are rapidly assuming a normal condition. As my patient is desirous to go into the country for a few days, I prepared for him a proper astringent lotion for the mouth and throat, and removed from his teeth the tartar which had accumulated in considerable quantity. I also directed the emollient poultices to be continued, and moderate pressure with the bandage to be made over the diseased parts.

*May 22d.*—My patient returned home after three days' absence, much improved in every respect—same treatment continued.

*May 26th.*—On examination this morning, I observed that the palate bone of the right side remained considerably swollen, and on probing the same through the alveolar puncture with a curved probe, I discovered an abscess about two inches long attached near the cribriform bone. This I at length, and with much diffi-

culty, succeeded in extracting, and found it to be shaped like and resembled a cocoon, which, on being opened, was found filled with pus and flocculi. I now injected the parts with the lotion of sulphate of zinc and tincture of myrrh.

*May 27th to the 30th.*—My patient absented himself by a visit to the country. He returned home on the 15th of June, and on examination I found all the disease entirely removed, the punctured opening in the alveolar remaining open and free from discharge.

*July 1st.*—To-day I gave the sinus several injections, and finding the parts perfectly recovered, I scarified the gum at the opening in the mouth, and brought the same in contact, and applied such necessities as to keep them united.

*July 6th.*—The incision in the gum I found entirely closed, and all traces of this truly dreadful and extensive disease of the antrum maxillaria and adjacent parts are completely removed.

*April 28th.*—I have seen my patient several times lately, and he still continues to enjoy perfect health, there never having been the least disposition in the disease to return.

#### POLYPUS OR FUNGUS OF THE GUM.

This disease is essentially hypertrophy of the gum, arising from mechanical irritation. If a tooth decay away on one side below the level of the gum, leaving a sharp margin in contact with the gum, a tumor frequently forms from the gum, spreads into and partially fills up the hole of the tooth, or the vacancy between the two decaying teeth. The tumor is usually composed of dense fibrous tissue, covered with epithelium; is almost insensible, unless ulcerated, when it becomes very painful. If the tumor be removed, it will grow again and again, unless the tooth be removed, when it will suddenly disappear. The tumors show, on dissection, an undulating surface of fibro-cellular tissue, covered by a thick layer of epithelium.

The best application for this troublesome state of the gum, is sulphate of copper applied every day or two.

#### BLUE GUM.

Dr. Watson, in his lectures, when treating of colica pictonum, says: "Very recently a most curious symptom, pathognomonic, I believe, of the presence of lead in the system, has been pointed out by Dr. Burton; and, now that it has been pointed out, one can scarcely understand how it escaped us so long. It is a blue or purplish line running along the edges of the gums, just where they meet the teeth."\*

Mr. Tomes is of opinion that the blue gum may be produced by other metals beside lead, especially mercury. He also says the

\* Dr. Watson's Lectures on the Practice of Physic.

continuance of tartar on the teeth is necessary to the continuance of this peculiar discoloration. If the whole of the tartar be removed from the neck of the tooth, the blue tinge on the gum will gradually fade, while its intensity will be preserved about the teeth on which the tartar is allowed to remain. This peculiar state of the gum, however, does not seem to be of so much importance as to require us to occupy any more space with the subject.

#### TARTAR A SALIVARY CALCULUS.

The saliva, together with oral and pulmonary mucus, holds in solution various salts, which are precipitated in greater or less quantity upon natural or artificial teeth, in those situations where the solvent fluids remain at rest. Epithelial scales, and other extraneous matters, that may be floating in the oral fluids, or entangled between the teeth, become impacted in the precipitated salts, and thus contribute to form the concretion usually called *tartar*! And, in addition to these, infusorial animalcules are met with in recent tartar, and their remains in that which has been dried.

Simon says—"Tartar on the human teeth consists of earthy phosphates, epithelium scales, a little ptyalin, and fat; and when examined under the microscope, there are seen abundance of pavement epithelium and mucus-corpuscles; and, in addition to these, numerous long acicular bodies and infusoria of the genera *vibrio* and *monas*."

Careful daily brushing will do much to prevent the accumulation of tartar on the teeth, but should it accumulate, it must be removed from time to time by instruments fitted for the purpose.

Tooth powder that will dissolve the *tartar*, will dissolve the teeth, and therefore may not be used.

#### ALVEOLAR EXOSTOSIS.

After a tooth has been pulled out, the vacated socket is gradually filled up from the bottom by bone. The growth of bone in the socket sometimes takes place without the previous removal of the tooth, and thus gradually forces the tooth out of its natural position, or out of the jaw. This happens more frequently to the central incisors of the upper jaw, than to any other teeth. You may sometimes find people in whom one tooth looks larger than its fellow, the one having been protruded by exostosis in the socket. In other cases, again, the teeth are forced apart by thickening of that portion of the alveolus which passes between them; or, they may be pressed outwards, or inwards, by osseous thickening of the inner or outer wall of the socket. The fangs of the displaced teeth are sometimes also shortened by absorption.

The disease will have its way in spite of treatment; hence, in most cases, treatment is but an addition to the evil consequent upon the malady. Eventually the tooth is forced out, or becomes so much displaced, or discolored from exposure of the fang, that its removal is necessitated.

## DISEASES OF THE GUMS.

*Acute Inflammation of the Gums.*—This disease is of rather rare occurrence, except as the consequence of specific agents administered for the cure of disease.

There are, however, a few cases on record of spontaneous salivation, in which the gums have been highly inflamed. I saw, a few months since, a case in which the gums of the upper jaw, and especially of the anterior part of the jaw, had become highly inflamed without any assignable cause; the pain in the mouth was great, and the flow of saliva excessive; the disease yielded to free scarification, astringents, and occasional aperients.

In salivation produced by mercury, the effect is first discernible upon the gums. Sometimes, previous to the coming of the metallic taste, and to the fœtor of the breath, and also to the soreness and discomfort which mark the influence of mercury on the system, the gums show indications that these conditions are about to appear—in fact that the patient will in a few hours be salivated. These conditions are,—the adherent portion of the mucous membrane of the gums assumes an opaque white color, contrasting strongly with the non-adherent portion, which preserves its natural hue or becomes more red. The free edge of the gums is moveable, but that part which lies over the edge of the alveoli is firmly tied down to the periosteum; and as the edges of the alveoli present a festooned line, so the whitened mucous membrane presents a corresponding festooned line. Again, where the mucous membrane is loosely reflected from the gum to the cheek, the natural color is preserved. The whiteness of the gum is produced by an increased secretion of epithelium, which, from being thicker and more opaque, renders the color given by the vessels to the subjacent tissue less apparent.

The surface of the mucous membrane, when deprived of the epithelium, is studded over with innumerable small conical elevations, or papillæ. The thickened epithelium is readily rubbed off the tops of the papillæ, while it retains its full thickness in the hollows between them; thence, if closely inspected, the gums will not be seen to present a uniform white hue, but a mottled aspect; and this, because the epithelium is thin over the papillæ and thick between them, and therefore more color will show through at one part than at another.

With the increased thickness there is a decrease of tenacity between the scales that form the epithelium, for the surface may be much more readily rubbed off than when in its natural state.

This curious and useful premonitory sign of coming pytalism, was, I believe, first noticed by Mr. Corfe; and if you wish to make use of this indication in your practice, it will be necessary that you should carefully note the state of the gums at the commencement of the mercurial treatment, for it is quite possible that other agents may produce a similar state of the gums, and that such may exist previous to the exhibition of mercury.



## THREE PREMIUMS.

GOLD MEDAL.



BRONZE MEDAL.



We placed some of our late manufacture of teeth for exhibition in the late Fairs, recently held by the following Institutes :

American Institute, New York.

Franklin do. Philadelphia.

Maryland do. Baltimore.

And to the Committees on Teeth at the Philadelphia and Baltimore Fairs, we addressed the following communication :

TO THE COMMITTEE ON ARTIFICIAL TEETH.

We would respectfully call the attention of the Committee to the improvements which we claim to have made in the teeth now on exhibition in the fair of the Institute :

1st. Their general appearance, and particularly the enamel surface of the front teeth, their corners being rounded, and otherwise more nicely imitative of the natural organs.

2dly. The Bicuspid—Their articulating surface, their fulness, and their adaptation to the place for which they are made, viz. first and second, the first being a little thinner than the second, especially with those designed for the lower jaw.

3dly. The Molars—Their grinding surface, giving a perfect, broad, articulating surface, from the fact that the outer corners of the upper molars project, while there is a corresponding depression on the same corners of the lower molars, thus obviating entirely the necessity for grinding the surfaces to obtain a fit. The molars and bicuspid being slightly oblique on their side, can be brought into circle without grinding, or presenting that square appearance which many do.

The teeth are all made with rivet-headed pins, or platina's,



# THE DENTAL NEWS LETTER.

Vol. II.

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No. 3.

For the Dental News Letter.

## PLUGGING TEETH.

MESSRS. JONES, WHITE & Co.

*Gentlemen*:—I will now proceed to give a description of the instruments used in plugging teeth. But from the great variety of shapes and instruments in use for plugging, it would seem that no two dentists could adapt themselves with facility to the use of precisely the same kind of instruments; and that each should consider his own best suited to all, is not unnatural. That every dentist should be capable of adapting instruments to suit his taste, and peculiar method of operating, is necessary, because the shape of the instrument will much depend upon the position which the operator assumes in operating, the construction of his chair and manner most easy of approaching the patient. Therefore, we do not wish to be understood as urging our own as best suited to all, but we will give a numeral description of some of them and in the order in which they should be applied in certain cases. Beginning first, with those commonly used for plugging the front teeth on their approximal surfaces, and numbering them 1, 2, 3, &c., in the order in which they are to be used; so that if they are applied in this manner by the learner, he will produce a certain inevitable result.

No. 1, is bent near its extremity to an angle of about eighty degrees, and is curved upon itself laterally, so as to form what are generally termed right and left pluggers. The curve should be sufficient to allow the point of the instrument to fall to the bottom of the cavity with facility, when rotating the shaft of the instrument on its axis, when entering and packing away the gold in the cavity, without the convex part of the instrument touching the adjacent tooth. There should be larger and smaller sizes, to suit the size of the division between the teeth and the cavities. These instruments can be used to advantage in many parts of the mouth.

No. 2, is bent to an angle of about eighty-five degrees, about one-fourth of an inch from its extremity, but is flat and straight with a kind of rib, or elevation running along the middle, which

gives it the appearance of a flattened spear. But instead of it actually terminating in a spear point, it terminates flatly with an edge in the direction of the shaft of the instrument. This edge is slightly serrated to prevent it cutting the gold too much while packing.

No. 3, is bent at about the same angle as No. 1, and the one curved right and the other left, but instead of presenting a right and left flat surface, it presents an edge which is serrated, in order to better carry the gold into the cavity, and to require less force to produce the same effect upon the surface of the plug while packing, than a broader surface.

No. 4, is bent at an angle of about twenty degrees, more or less, to suit different cases, terminating nearly at an edge, which is also serrated. This instrument can be used for packing the gold along the lower boundaries of the cavities of the approximal surfaces of the superior front bicuspides, and some of the superior molares, when much decayed, or the facial cavities of the superior molars; but when bent at an angle of about eighty degrees, forming No. 5, it can be used for the inferior molars.

No. 6, is a strong, doubled-curved, flat, oval burnisher; each curve is at an angle of thirty degrees, and half an inch long; the last arm of the angle is slightly curved, so as to form a convex and concave surface laterally, making a right and left instrument; this instrument can be used with great facility upon the approximal surfaces of nearly all of the superior teeth, as well as some of the inferior, by resting the thumb of the right hand against the tooth which is being plugged, or one adjacent.

All instruments for packing a plug, should be wedge-shaped, so as to pack laterally as well as downwards,\* and presenting as small a surface to the plug as possible, so that the greatest effect may be produced upon a given surface with a given power. The variety of instruments for packing and burnishing plugs, can be obtained at the instrument makers, generally, and their adaptation to various positions and purposes, must depend partly upon the ingenuity and judgment of the operator.

#### MANNER OF PREPARING THE GOLD.

When the cavity is prepared, and the instruments intended to be used for introducing the plug, are placed within convenient reach, then prepare the gold in such a manner as may be deemed proper for the case; say for a small sized lateral cavity, No. 4 gold cut in strips, from one-fourth to one-half the breadth of the leaf—rolled, or folded and twisted to form a kind of rope, but not to be crimped so as to break the leaf in either way; on the contrary, it should present as smooth an appearance as possible. Some suppose, the more roughly the rope is twisted, the better

\* The writer believes he was the first to apply the sharp wedge-shaped instrument for plugging teeth, having used them as early as 1838.

one fold, when put in the cavity, will hold upon another. But not so; besides, it makes a porous plug, and when the leaf is much crimped and broken, it cannot be rendered solid without immense pressure: again, it will not receive a fine polish, as small particles will constantly burnish off.

For facial cavities, No. 6 is, perhaps, best, prepared in a similar manner as described above, as it makes a stronger plug, and there is better opportunity for applying more pressure, in packing, in such cases. Where a facial cavity is large, a leaf of No. 4, folded over a piece of watch-spring, or thin burnished steel, of about an eighth of an inch wide, in the form of a tape, which folded again upon itself, so as to form a kind of block, as many of which as may be desired, may be placed into the bottom of the cavity, and firmly packed. The gold being folded smoothly in this way, is already nearly as solid as it can well be made, and very little pressure is required to render it entirely so. A deep cavity partially filled, so as to make it shallow, is desirable, which can then be finished with the rope in the usual way. This kind of block, nicely folded, is indispensable and invaluable for building up the broken down sides of cavities, or placing along the gum of any large cavity, because the dampness cannot permeate it, as well as the gold rolled in the ordinary manner, and in filing and finishing, it will not crumble away. It should be our constant study to put the gold in such a condition before introducing it into the cavity, as to be rendered solid with the least possible pressure and in the shortest space of time. In introducing the gold into a shallow cavity, say a little deeper than the enamel, one end of the rope should be placed firmly against one side, and bottom of the cavity opposite the point at which we intend to finish. Then catching the roll outside of the cavity, and folding it upon itself with the instrument, and carrying that point down to the bottom of the cavity, also, leaving a knuckle a little without the orifice. This continued alternately, and pushing the one fold against the other powerfully, until the cavity is filled, using for the last one or two folds, a small instrument. This can commonly be accomplished in the cavities of the front teeth with No. 1 instrument. Now, these knuckles, or convolutions, may be projecting in the cavities of the approximal surfaces against the adjacent teeth, so as to prevent getting fairly upon them with the same instrument; if so, use No. 2, which, being sharp at the edge, and wedge-shaped, will enter between the plugs and the adjacent tooth, without displacing the gold from its previously fixed position, and compress the plug sufficiently to admit of applying the sharp right and left packers, No. 3, with which the plugs can be completely packed. The same method precisely, is adopted in introducing the gold into the facial cavities of the superior and inferior molars, using No. 4 for the superior, and No. 5, 2 and 3, as the case may be, for the inferior; and for packing the gold of either jaw,

use the ordinary packers, for back teeth, with small points slightly serrated, to prevent slipping. Now, it is exceedingly important that the gold and the cavity should be kept perfectly dry during all this part of the operation, and in the front teeth especially, because the dampness will prevent the fresh dry surfaces of the gold and cavity from adhering well.

If the saliva gets in, it cannot be entirely pressed out, however powerful the pressure may be, because the hardening of the gold upon the surface of the plug, will close up the pores there and prevent the water from escaping from those below; besides, it will undergo chemical change, and discolor the tooth and plug. Various contrivances have been resorted to by different operators, for this purpose; Desaborde's tongue holder, for depressing the tongue, and Lawrence's, which is for a similar purpose, and very useful. Some, also, use a kind of truss with one pad under the chin and one on the tongue. Even the syphon has been applied to draw the saliva from the mouth. A very simple contrivance of mine, whilst operating on the lower teeth, is to fold a piece of muslin around a light watch-spring, about two and a half to three inches long, as the case may require, sufficient to make a roll about as thick as the little finger, and place it around the jaw, between the tongue and margin of the gum. This not only absorbs the saliva, but compresses the sublingual and maxillary ducts, and prevents its rapid secretion, and the elasticity of the spring forces the roll against the gum, and prevents the saliva from flowing between the teeth while operating upon their approximal surfaces, as well as any other parts of the them. And as the back teeth of the inferior maxillary, commonly incline a little inwards, they favor the retention of it in position. If, at the same time, a roll of cotton, lint, or napkin be placed between the cheek and the superior teeth, to absorb the saliva there, as well as to compress the stensonian duct, and an additional roll compressed between the inferior teeth and cheek, a complete state of dryness can be maintained long enough to accomplish the operation of plugging any of the inferior teeth, back or front. For protecting the back teeth of the superior maxillary, placing a roll of cotton, or muslin, between the gum and cheek, is frequently sufficient, but when saliva comes in the way from the patient involuntarily touching it with the tongue, apply the tongue holder, or roll a napkin into a ball, and place it between the roof of the mouth and tongue. A plan which we practice a great deal in operating upon the front teeth,—as it not only keeps the tongue down but prevents the breath from dampening the gold or cavity, at the same time that this is applied, for the front teeth—is to place a thin roll of muslin between the lip and gum. This will suffice for general directions, but each operator must exercise his judgment in adapting an expedient for special cases. For drying the cavity, some prefer lint, others cotton, paper, tape, &c. We use tape or cotton, as the case may

be, forced in hard enough to absorb the principal part of the dampness, and depend upon scraping the cavity dry, as that process leaves a fresh surface, to which the gold best adheres. After the gold is well packed\* in the cavities, file and scrape the rough surface of the plug, pack and burnish alternately, with a smooth instrument, until the surface is level or flush with the margin of the cavity, always having filled the cavity full enough to admit of this without reducing it below the margin. Very frequently we do not file the tooth as much as we ultimately intend it shall be, that after the plug is packed we may file the tooth so as to be sure that the plug and margin of the cavity shall be perfectly flush, unless it be in some few cases where it is desirable to have the plug to project above the surface of the cavity, but in all cases, the marks of the instruments should be filed† out of the surface of the plug. After this is accomplished, use between the front teeth, emory paper, or pumice, finely powdered, rotten-stone and rouge,‡ and burnishing alternately, until the surface is as perfect, and dense, and mirror-like, as a well polished gold plate. It is indispensable that the surface of the plug shall be impervious to air and dampness, and not loose particles of gold by brushing or during mastication. The Scotch stone of the jewellers, can be used with advantage in many cases, in dressing the surface of the plug, previously to the use of the rouge, but all those substances must be well cleaned off of the surface of the plug before using a burnisher as they will injure the instrument, and prevent the production of a perfect polish. For filling a nerveless tooth, we are in the habit of rolling a piece of heavy gold-leaf into a solid and pointed roll, which can be done by cutting the leaf into a point and passing this down the roots of the tooth as a flexible wire, and then following it with a small plugger, especially for that purpose, adding more gold until the nerve cavity is completely filled, and lastly, burnishing this surface as hard as the filling of the external cavity.

Believing, gentlemen, that I have said sufficient to direct the young learner in the general operations of plugging, I will conclude by thanking you for the flattering manner in which you have been pleased to receive this short series of papers, regretting that they are not as deserving as I could have wished them to be, which has resulted from a want of as much time as I had originally intended to devote to them,

I remain yours, truly,

J. D. WHITE.

\* We sometimes use for packing the buccal plugs, a forcep constructed for that purpose, specimens of which can be seen at Mr. H. G. Kerns, No. 293 Market street.

† Mr. Murphy, No. 110 North Fourth street, can furnish the different kinds of plug files which we have in use, as it would be too tedious to describe them.

‡ Those three last named articles can be applied either with a piece of tape or hickory wood.

For the Dental News Letter.

MESSRS. JONES, WHITE &amp; Co.

In looking into your Dental News Letter of October last, I noticed a statement made by Dr. Fleming, of Harrisburg, Pa., instancing the case of a gentleman in that place (Mr. S. M.) having, when about three or four years of age, the right central incisor knocked out by the point of a pitchfork, and that in the course of two or three months another tooth presented itself, which grew down and supplied the place of its predecessor. Not claiming much physiological knowledge or experience, but having paid some attention to matters of this character during the last ten or twelve years, and witnessed so many egregious errors and misconceptions relative to cases of this kind, that I am inclined to the opinion that THIS is one among the many instances where nature has baffled the conception. I have no hesitancy in believing that the vacancy was filled, but cannot conceive how it could have been filled physiologically speaking, by an "entire new production." With due deference to the statement given and the opinions of others, it is very evident that this vacancy may have been filled by other means much more rational and physiological. And one of the means I shall mention is, by a rapid inclination of one or both the teeth adjoining the vacancy; and by this approximation the vacancy became closed before much notice was taken of it, either by the young subject, (Mr. S. M.) or any other with whom he may have been associated. In consequence of which it may have been taken for granted that it was filled by a new production. This would evidently give the inclining tooth an abnormal appearance. Its position, instead of being perpendicular would be oblique—the corner of the cutting edge inclining into the vacancy, being much shorter than the other. And I hope this conclusion will not be considered uncharitable to the statement given, either by Dr. F., or the gentleman, (Mr. S. M.) It is by no means unreasonable to conclude that the latter gentleman may have been mistaken as to the operations of nature at the early period of four or five years of age; for, we observe many mistaken notions even among parents themselves, as to whether their children have or have not shed such and such particular teeth. Such are the wonderful changes constantly going on in the mouth at this period that most persons, no matter how intelligent otherwise, will be liable to misconstrue, pervert or misunderstand the manner in which nature carries on her operations, unless he be acquainted with the formative process, together with the anatomy and physiology of the teeth. My own opinion is, that the production of a secondary deciduous tooth cannot be accounted for upon any sound physiological principle.

Nature, it is true, has in many instances great restorative powers; but that she has such germinative and formative powers as to produce an entire new member when the means of that formative



process is removed, is untenable, and without an example in the recuperative powers of nature.

For further illustration: the rudiments of the temporary teeth are first discovered in a continuous pultaceous cord, filling a semi-circular groove in the jaw. This groove is, together with the pulp it contains, gradually divided by elevations of transverse portions of bone into as many divisions as there are teeth in the jaw. Each of these constitutes the rudiments of a tooth; becoming enveloped in its own membranes which secrete the bony structure and the enamel.

These pulps prior to the secretion of the entire bony structure, give off cords that form the pulps of the *SECOND* or *permanent* set. And thus ends the natural germinative and formative process. And the original rudiments are thus entirely disposed of. Then, can it be supposed, from the loss of a tooth at any age, that the restorative powers of nature are so great as to commence again a new work in the germinating process, entirely distinct and separate from the original rudiments. If we admit the doctrine of "a new production," we must also admit that it originated in the same alveolus, and that the absorption of its processes must have been subverted, which, I may say, is never the case. Upon the loss of a tooth—no matter how—an absorption of the gums and alveolar processes is the undeviating result.

The very short period in which this tooth developed itself, affords a strong argument against the doctrine of a new production. The period for the formation and developement of the temporary teeth must be admitted to be ten or eleven months, and that of the permanent ones between five or six years. But in this case we have the pulp formed, with its necessary membranes, secreting the bony structure and enamel, and all within the short space of three months. There must be something rotten in Denmark.

Another means by which this vacancy may have been filled, is by the premature appearance of the permanent tooth lying beneath and inward of the tooth knocked out; which was occasioned by the absorption of the alveolar processes. But, if this latter conjecture be true, we are compelled to say, physiologically speaking, that Mr. S. M. must have been mistaken as to his ever having shed this particular tooth a second time. And it is more rational to come to this conclusion, than the admission of an entire new production. For, when we consider the great number of errors under which adult persons labor in matters of this kind, is it not quite plausible to conclude that Mr. S. M., when at six or seven (which is the probable age of his shedding the *FIRST* and cutting the *SECOND* set) may have been mistaken as to whether he again shed this particular tooth? I think it much more plausible than "an entire new production."

I will here mention an instance occurring within my own observation, as one of the many cases of misconstruing the operations



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process is removed, is untenable, and without an example in the recuperative powers of nature.

For further illustration: the rudiments of the temporary teeth are first discovered in a continuous pulstaceous cord, filling a semi-circular groove in the jaw. This groove is, together with the pulp it contains, gradually divided by elevations of transverse portions of bone into as many divisions as there are teeth in the jaw. Each of these constitutes the rudiments of a tooth; becoming enveloped in its own membranes which secrete the bony structure and the enamel.

These pulps prior to the secretion of the entire bony structure, give off cords that form the pulps of the *SECOND* or *permanent* set. And thus ends the natural germinative and formative process. And the original rudiments are thus entirely disposed of. Then, can it be supposed, from the loss of a tooth at any age, that the restorative powers of nature are so great as to commence again a new work in the germinating process, entirely distinct and separate from the original rudiments. If we admit the doctrine of "a new production," we must also admit that it originated in the same alveolus, and that the absorption of its processes must have been subverted, which, I may say, is never the case. Upon the loss of a tooth—no matter how—an absorption of the gums and alveolar processes is the undeviating result.

The very short period in which this tooth developed itself, affords a strong argument against the doctrine of a new production. The period for the formation and developement of the temporary teeth must be admitted to be ten or eleven months, and that of the permanent ones between five or six years. But in this case we have the pulp formed, with its necessary membranes, secreting the bony structure and enamel, and all within the short space of three months. There must be something rotten in Denmark.

Another means by which this vacancy may have been filled, is by the premature appearance of the permanent tooth lying beneath and inward of the tooth knocked out; which was occasioned by the absorption of the alveolar processes. But, if this latter conjecture be true, we are compelled to say, physiologically speaking, that Mr. S. M. must have been mistaken as to his ever having shed this particular tooth a second time. And it is more rational to come to this conclusion, than the admission of an entire new production. For, when we consider the great number of errors under which adult persons labor in matters of this kind, is it not quite plausible to conclude that Mr. S. M., when at six or seven (which is the probable age of his shedding the *FIRST* and cutting the *SECOND* set) may have been mistaken as to whether he again shed this particular tooth? I think it much more plausible than "an entire new production."

I will here mention an instance occurring within my own observation, as one of the many cases of misconstruing the operations

of nature. Whilst performing some operations, sometime since, on the mouth of Miss B. C., of Autauga County, Alabama, aged about fifteen, I noticed the left superior cuspidatus to be somewhat irregular, and from its shape, size and color, was induced to believe it to be the temporary tooth that had never been shed. This, together with an irregular position of the adjoining lateral incisor, somewhat over-lapping the central incisor, induced me to advise its extraction. Assuring the young lady that the vacancy produced, would in a short time be closed, by the inclination of the adjacent teeth; and, also, the irregular incisor would fall back and assume a better position. Had I believed this tooth to be the permanent, and not the temporary one, I should have advised a different course to remedy the irregularity. However, my advice being consented to, the tooth was extracted. Very little absorption of the fang, if any, had taken place, but the entire tooth was much less than permanent canine teeth are known to be. Shortly after this the young lady visited her friends in Wilmington, N. C., where she remained about eighteen months. During this time my predictions, as to the closing up of the vacancy not being verified, she consulted a dentist who endeavored to close the vacancy by means of ligatures, but without effect. She returned home in the fall of 1847, without any diminution of the vacancy. Being now about seventeen, and thinking the vacancy rather conspicuous, she consulted a dentist in Montgomery, Alabama, who inserted an artificial plate tooth. Two or three months after the insertion, a new tooth made its appearance immediately beneath the plate, and is now a tolerably well shaped permanent cuspidatus.

I was in the neighborhood of the residence of Miss B. C. a short time after this tooth made its appearance, and soon discovered the rumor to be, that this young lady had cut a **THIRD** canine tooth, having had her **SECOND** one extracted for irregularity, &c. Now, it is true that seventeen is a late period for the cutting of a tooth of the second dentition; but from what has been already stated, it is evident that I am compelled to say, instead of this tooth being a third production it was only the second—the true permanent cuspidatus. This tooth being imbedded in the bone beneath the gum, constituted the principal hindrance to the approximation of the adjacent teeth when the ligatures were applied. The case showing great tardiness in the absorption of the fang of the temporary tooth, and a corresponding tardiness in the growth and rising of the permanent one, I think I am justifiable in saying that all those notions concerning *secondary deciduous*, or cutting **THIRD** teeth, &c., originate from a misconception of nature's mode of operating.

Excuse the simple style of this communication.

Yours truly,

THOS. J. WARD,

Wetumpka, Alabama.

For the Dental News Letter.

MESSRS. JONES, WHITE &amp; CO.

*Gentlemen* :—The January number of the “Dental Register of the West,” has lately reached me ; it contains an article speaking in the most *glowing* terms of my Odontalgic Drops, lately advertised in your “Dental News.” As the writer of it appears to be laboring under misapprehension, it becomes necessary for me to explain to him what he seems not to understand properly ; but others in the profession might not investigate more fully, and fall in the same error as the Doctor.

Without desiring *you* to take any part, *pro* or *con*, in the matter, allow me, gentlemen, room for a reply in your valuable paper.

Doing so you will much oblige,

Yours, very respectfully,

C. A. D. B.

*Dear Sir* :—Your remarks on “Du Bouchet’s Nostrum,” published in the January number of the Dental Register of the West, are most welcome, they are witty, well written, and any one reading the article will for some time at least, remember Du Bouchet’s Odontalgic Drops. Unfortunately while setting forth so well their qualities, you seem not to have understood properly the tenor of our advertisement, or forgotten to expatiate upon our *terms* of sale of the recipe. Our modesty will not bear so much as you have condescended to bestow upon us, in the shape of titles, &c. ; we are very plain ourselves, and not desirous to engage in controversy in a language not our own, which we cannot twist into such agreeable phrases as you ; we might even say that our professional duties do not allow us to enter upon discussions which consume much time, but you would perhaps think all that a *feinte*. Returning to you our sincere thanks for the trouble you have taken in writing us into notice (for we feel indebted to you) would not answer either, because, perhaps but few would become aware of it, and we might be accused of ingratitude ; that is a prevailing evil from which we desire ever to be free ; therefore, allow us, through the medium of one of our lights, to offer a few strictures on the remarks you have had the goodness to make upon our Odontalgic Drops.

Your first remark might apply very properly to any article, good, bad, or indifferent, offered for sale before being tried, seen, or smelled ; but as no one is compelled to buy our recipe unless at his pleasure, after having tried it, and as we offer to send a sample of the Odontalgic Drops, free, gratis, for nothing, to any one applying for it, (postage paid) we see, indeed, no just foundation for your remark. We have always considered dentists as intelligent men, able to judge for themselves, and as in this matter they have an opportunity of testing the efficacy of the article offered to them, we are willing to abide by their decision.

We are still more of opinion that “its effects are instantane-

ous"—our daily practice has afforded us some ground to think so. Although you have discovered that extraction cures the tooth-ache, we do not choose to use steel balm as a first application, we would rather in all practicable cases, save a tooth; this is, perhaps, not the practice resorted to in the West, but I think many of our practitioners here will bear me out.

We do not state that it will destroy the pulp of a tooth, for when exposed, we usually extract the tooth, or destroy the nerve mechanically, or by means of arsenious preparations. That "it is harmless in its nature," we are perfectly satisfied, and although "ladies do not, as yet, use it in lieu of Eau de Cologne," and "children have, until now, only stopped (not unfrequently) crying upon its application," we still believe it a desideratum to the profession.

We did not in this case deem ourselves aiming at being regarded as great benefactors of our race; if you think we are deserving such honor, we must give in, and bow in submissive acquiescence to your superior judgment. We will, however, inform you, that our idea was, that in giving the profession an opportunity to test our Odontalgic Drops, (gratis) we might very possibly dispose of the recipe, and thus, likewise benefit ourselves in a fair way, giving each their money's worth.

We perfectly agree with your views as to secrecy, and did we live in another age, would probably have made this recipe public to the profession; but our efforts at regenerating the profession by setting the example, I fear would have proved useless, and, indeed, we cannot afford to give every thing away we must retain something to ourselves. We thought that our terms of sale, "unparalleled," as you would call them, could prove satisfactory to all.

As to your *à quoi bon*, I will say, that glancing at the letters received from all parts of the Union, from dentists requesting a sample of the Odontalgic Drops, we might suppose there was some use in it; but, perhaps, the poor fellows are like ourselves, laboring under a delusion, or have not heard of the extract of nut-gall. When they read your letter, *you* will be *the* benefactor of mankind.

That light emanates from the east, is true, but we regret that obstacles, such as unfairness of judgment, sometimes interpose to obstruct its beams.

In conclusion, dear Doctor, I shall feel happy to give you an opportunity to test fairly my Odontalgic Drops if you desire it, and remain under many obligations to you for your kind notice.

I subscribe myself, very respectfully,

Tout a vous,

C. A. DU BOUCHET.

To A. BERRY, D. D. S., Grand Gulf, Miss.

For the Dental News Letter.

## REPORT OF THE COMMENCEMENT OF THE BALTIMORE COLLEGE.

The ninth annual commencement of the Baltimore College of Surgery, was held on the evening of the first day of March at the College Building.

Long before the hour arrived for the commencement of the ceremonies of the evening, the large lecture room of the College was crowded with ladies and gentlemen to witness the ceremony of conferring the degree of Doctor of Dental Surgery, on the gentlemen who had given satisfactory evidence to the Examining Committee of their attainments, and qualifications in the theory and practice of Dental Surgery, to be admitted to that honor.

At 7½ o'clock the Faculty of the College, and the Examining Committee, with the graduating class entered the room and was received with rounds of applause. After an impressive prayer by a Rev. Clergyman, the right to confer degrees, given the institution by the authority of the State of Maryland, was read in Latin by Professor W. R. Handy, when the following list of candidates was announced as worthy of the honors of the College, by Profesor Harris, together with the subject of their Thesis, namely :

Charles W. Ballard, M. D., New York, Thesis—Physical indications of the teeth as connected with dental operations.

Philip H. Austin, M. D., Baltimore, Thesis—Abuse of Mercurial preparations, and its effects on dental formation.

M. A. Hopkinson, Massachusetts, Thesis—Causes and consequences of caries of the teeth.

J. U. S. Feemster, Tennessee, Thesis—Effects of diseased teeth on the general health.

A. A. Blandy, M. D., Ohio, Thesis—Nervous disorders.

J. H. A. Fehr, M. D., Kentucky, Thesis—General dental history.

J. F. Warren, Kentucky, Thesis—Medico-dental education.

R. R. Sams, South Carolina, Thesis—Dental Caries.

Albion Martin, Maine, Thesis—Extraction of the teeth.

Wm. S. Miller, Virginia, Thesis—Caries of the teeth.

M. Jerome Cherry, Baltimore, Thesis—Mechanical dentistry.

George W. Watkins, Georgia, Thesis—Professional Excellence.

Thomas Littey, M. D., Baltimore, Eruption of the teeth.

The degree of Doctor of Dental Surgery was then conferred on each by Dr. E. Parmly of New York, provost, with exceedingly appropriate advice.

The report of the infirmary and mechanical room of the College was then read by Professor Cone, who remarked at its conclusion, that from the above report, it would be seen that the gentlemen graduates were not thrown into practice to make their patients their school, and their failures their instructors.

The valedictory address was then delivered by Dr. E. B.



Gardette of Philadelphia, in which he defined in a happy manner obligation of patients and practitioners to each other. When Dr. Gardette had concluded, Dr. Philip H. Austin, on behalf of the graduating class addressed a few parting words to the Faculty and Examining Committee. Dr. A. spoke of the progressive character of Dental Science, as of science generally; and of the obligations resting upon every professional man to communicate the improvements which he had made, that young men, starting therefrom, might be saved years of toil, and go on to greater knowledge. He alluded to the advantages in this respect of the young Dentist of the present day; and more particularly the advantages enjoyed in this Institution, advantages which, while it opened for him a more immediate success, laid him also under obligations to the professors, to the College and to the community, which the students should never lose sight of. To the professors he said, "we feel, for their unvarying kindness, unwearied attention and generous forgetfulness of self interest, a debt of gratitude, which the class wish never to forget. With such kind feelings, we bid you, gentlemen, an affectionate farewell and pass forth into the world bearing before us that 'banner with a strange device:—EXCELSIOR.'"

After the benediction, the Professors, Examining Committee, Students of the College, and a few invited friends, retired to discuss a collation, served up in one of the rooms of the building.

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### AN ESSAY ON THE TEETH.—BY AUGUSTUS COOK.

[London: John Churchill. 1848. pp. 75.]

This is a little work on various subjects connected with the teeth, plainly and unostentatiously written, and which may prove useful, not only to the professional, but also to the general reader; for although we do not in general approve of the plan of writing books on the subject of medical practice, for the perusal of unprofessional persons, a little essay of this nature, on a matter with which every one may be reasonably supposed to be interested, if not familiar, can scarcely be objectionable.

Mr. Cook has touched upon several points appertaining to the pathology and treatment of dental diseases, and he has made some excellent and practical remarks, "On the disadvantages of inattention to the Teeth," and on their diseases, pointing out that, with ordinary care, much mischief may be obviated, much may be done to prevent gangrene in the teeth, care should be taken not to allow any very hot or cold liquid to come in contact with them. The water used to cleanse them should be slightly warm at all times. A too crowded state of the mouth should be relieved."

We recommend the treatise for perusal.—*London Lancet*, December 9.



# THE DENTAL NEWS LETTER.

APRIL, 1849.

## A DICTIONARY

*Of Dental Science, Biography, Bibliography, and Medical Terminology*, by CHAPIN A. HARRIS, M. D.—D. D. S., Professor of the Principles and Practice of Dental Surgery in the Baltimore College—Author of Principles and Practice of Dental Surgery, etc., etc. Philadelphia, Lindsay & Blakiston, 1849. Royal 8vo., pp. 780.

We have been favored with a copy of the above work in advance of its publication, but have been able to give only a hasty glance at its contents.

Every dentist almost will at once surmise the character of such a work, and if properly prepared, its great utility; and they will as readily imagine the immense labor requisite to accomplish it, but that it has been accomplished, and with great ability, is here demonstrated; and we trust the profession will properly appreciate the labor, and avail themselves of its advantages. It is a valuable accession to Dental Literature, and should find a place in every dentist's library.

In glancing hurriedly over the work, we find the author has devoted considerable space to dental authors. His notice of them is quite *full*, but we cannot say as much of his notice of the manufacturers of teeth. This is a branch which has been too long neglected, and its claims to importance in a great measure overlooked, and we can see no good reason why the manufacturer should not be entitled to quite as much regard as the author of "a paper on mechanical dentistry," or, "an essay on the use of arsenic for destroying the nerve." We have no disposition to cavil, but on the contrary, desire to commend; yet we think we have reason to say thus much. However, as the objection may seem to come from us with a bad grace, we will say no more, leaving it to the judgment of the profession.

In justice to the author and publisher we must say the work is handsomely got up, on good paper and clean type, making altogether a neat book.

We have removed our Philadelphia concern from 273 Race street, to 120 Mulberry street, where we have a more central location, more room, a better light and increased facilities for manufacturing and selecting teeth.

Our customers will therefore bear in mind that our Philadelphia address is 120 Mulberry street, and at New York, 163 Broadway.

## ANÆSTHESIA,

*Or the employment of Chloroform and Ether in Surgery, Midwifery, etc., by J. Y. SIMPSON, M. D., F. R. S. E., Professor of Midwifery in the University of Edinburg, Physician Accoucheur to the Queen in Scotland, etc., etc., etc. Philadelphia, Lindsay & Blakiston, pp. 248.*

This work has just been handed us, but not in time for as full a notice as we should like to give it, still we can say this much, from the cursory view we have given it, that it treats the subject in a masterly and scientific manner, answering all the objections from every quarter, made to the use of chloroform, and giving it a decided preference over ether, particularly in obstetric practice. It contains the author's answer to Dr. Meigs, of Philadelphia, which is an able and argumentative reply. We commend the work to every one who wishes to inform himself on this very important subject.

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The Dental Messenger and Lancaster Annual Visitor, for 1849, by John McCalla, Dentist. This is a little work intended, we presume, for circulation among the author's patrons. It contains some good advice to those for whom it is designed.

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We have been informed that a person has been traveling through some parts of the country selling teeth as our manufacture, and representing himself as Mr. McCurdy, (one of our firm.) We wish to state here, that he is an imposter.

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We are requested by the author of the article published in the last number, entitled "Arsenic to destroy Nerves in Teeth," to say, that in the receipt given for the preparation of it, a mistake occurred, instead of 10 grs. arsenic and 15 morphia, it should be 15 grs. arsenic and 10 morphia.

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We have to record the death of an old dentist, that is, old in practice—a man of a good heart and generous impulses, and one whom we have long known. His loss will be severely felt by a large circle of acquaintances.

DIED, on Thursday morning, March 15th, after a severe illness, WM. RIPPERGER, in the 51st year of his age.

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We have received from Mr. L. J. Chamberlin, of Pittsburg, a drawing of a drill for drilling the root in pivoting teeth.

Its peculiarity consists in the end, which is about half an inch in length, being cut longitudinally, like a rose-head drill, the thread somewhat spiral, making about half a turn in the half inch.

We give the following, which was adopted by one of our first dentists, as a very good system of office rules. If necessary, the prices for the different operations may be added :

"1st. Dr. — respectfully announces to his visitors, that he will always attend his waiting room, as soon after a call is made, as the nature of the operation he is engaged in will allow.

"2d. That in all cases no more time will be consumed in consultation, than their case necessarily requires, as the time so employed, is always at the loss of the patient engaged.

"3d. That when a portion of time is set apart to meet his patients, if they find it out of their power to fill it, they will inform him to that effect, in time for him to devote it to other use—and *in no case will he consider himself bound to fill an appointment, if the patient do not arrive a few minutes before the time to claim it.*"

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We think much information may be elicited by the noting down of all peculiarities, presenting themselves in the practice of every dentist; and with the hope of encouraging such a course, and inducing their publication, we will cheerfully publish every thing of this kind sent us, that is of the least importance.

There was a drawing accompanying the following communication, also a tooth, both of which prove the correctness of the assertions therein made.

### IRREGULARITY.

MESSRS. JONES, WHITE & Co.

I enclose a specimen of irregularity, which, although it may not be a novel case to you, is, I confess, quite a curiosity to me. It is a left inferior cuspidatus, and as you will see, has two fangs. I took it from the mouth of a lady, from which I extracted all the teeth preparatory to inserting a full set. There is no mistake about it being a cuspidatus, as I also extracted both bicuspids from the same side. The crown, also, is evidence of its character.

I met with another case of irregularity last week, in which the cuspidati and the bicuspids were transposed, as you will see by the sketch I send you, which I was induced to take from the very novel and singular appearance the mouth presented. The incisors were gone and the person called to have them replaced. The bicuspids and cuspidati have quite changed places, and on one side the bicuspids are both rather in front of the cuspidati.

Excuse my long description. It may be that neither of these cases will be interesting to you, as your opportunities for observation are so much more numerous than mine, but to me they are quite curious. The patient told me that the incisors were also irregular.

Truly Yours,

March, 1849.

C. W. HICKOK.

We would direct attention to the advertisement on the third page of cover, headed "Notice to Dentists."

We have reason to suppose that a good business could be done by one having the requisite qualifications.

We give below an extract from a letter, which, barring the compliments to ourselves, contains some good thoughts.

We have long thought, and often said, that more sociability and interchange of sentiment would not only improve and elevate, but otherwise materially benefit the profession, and the reasons are obvious. But to the extract.

PROVIDENCE, La., Dec. 31st, 1848.

MESSRS. JONES, WHITE & Co.

*Gentlemen* :—I have just had the pleasure of receiving a number of your periodical, the Dental News Letter, and expect to be much edified and instructed by perusing its future numbers. It affords me much gratification to find that the members of our profession in my native city, (Philadelphia) are making bold efforts to elevate the profession to that standard which its importance justifies. It has long been a source of regret to me, that so great a want of liberality has prevailed among our professional brethren, that each one was left to grope his way with what little light he had; but we can now hope for better things, which will raise us from the dark age of selfishness, and place us upon an eminence which will enable us to derive light from all the bright luminaries of the profession which now adorn our country.

Isolated as some of us are, it becomes necessary for us to have some medium through which we can be put in possession of the various discoveries which are daily being made in different parts of the country. The Dental News Letter promises much for the future on this head, and I hope, gentlemen, that you may reap a rich harvest as a reward for your spirited efforts in this praiseworthy enterprise.

Yours,

T. W. DUNN.

We have been favored with a copy of the Valedictory Address of Dr. C. O. Cone, delivered to the Students of the Baltimore College of Dental Surgery, from which we make the following extracts:

"I feel sorry to admit it, but frankness compels me to acknowledge the fact, that the mechanical division of the profession, has been one of the greatest curses that has detracted from the dignity, and high position which our calling deservedly merits. This branch of the profession has often been the stepping-stone for the meanest quack to enter on a lucrative practice, pointing out most plainly the estimation in which the practice of this branch is held by the community.

“On the practice of the mechanical department of the profession, there has generally existed an erroneous opinion, fraught with dangerous consequences. It has been supposed by many, that mere mechanical fact is all that is necessary in the branch now under consideration; simply securing beauty of mechanical execution. This latter attainment I will admit to be very desirable, and even necessary; but the mechanical contrivances which the dentist constructs in actual practice, are to represent, in their office, important organs, acting by means of delicate springs and parts, in unison with muscles and nerves of the living frame, plainly showing the necessity of a practitioner in this branch being thoroughly grounded in anatomical knowledge that is portable and ever at hand. Again, these mechanical substitutes are always demanded when a pathological change exists, which fact, itself, plainly answers the query, what acquirements should be possessed by the mechanical dentist on this scientific subject.

“From a want of knowledge of the subject just named, and other attainments, dental mechanics have been more generally practiced on false principles, that of how much could be done, not making it subservient to its true and legitimate purpose of solving the problem of how little assistance nature should receive from our calling.

“But persons who would not be trusted to mend the simplest machine, will, without hesitation, offer their services in dental mechanics, to remedy the structure of the body, alike unacquainted with its delicate strings, as well as the frail bond which holds each cord in harmony. \* \* \* \* \*

“Mechanical dentistry embodies the general principles of the three chief arts, the creative, useful, and ornamental. ‘If it gives not bread to the hungry, it enables the hungry to eat, and the dyspeptic to appropriate that bread which Providence has given him;’ and when the resources of other branches of the profession can no longer be successfully administered, mechanical dentistry

“‘Can remedy the ill,  
Restore her hopes and make her lovely still.’”

The above conveys a good idea of the importance which the Doctor attaches to the mechanical branch of dentistry, and the following is a fair sample of the figurative style in which the closing part of the address is written.

“Gentlemen, others have gone forth before you, stimulated by the same hopes and high resolves. Some of these have toiled by the way-side—have harkened to the syren voice at the doorway of the Castle of Indolence: while others, having surmounted obstacle after obstacle, and trampled upon the mighty barriers that impeded their onward progress, are now rapidly approaching the pinnacle of professional distinction and human grandeur.

"With these you write your names, as companions upon the great high-road of science; and when you return, as we hope you may, after having 'hung your banner upon the outer wall' of quackery, and as the old war-horse is animated by the sound of the trumpet, so will we 'fight the battle o'er again,' by reciting the triumphs of skill and success.

"Time, the fierce spirit of the glass and scythe, rides on the bark of positive certainty, propelled by the motive power of creation. No power can stay his onward course. On, still on, he presses. His watchword is eternity. He knows not the chains of sleep or weariness, and night's darkness has no fetters to bind his onward course.

"When this all-pitiless tomb builder shall have whitened your locks, which are now glossy with the dews of life, and your countenances shall have been ploughed deep by his furrow of care, may I be able to look on your labors, and exclaim, 'these are my jewels.'

"Gentlemen, there are times when the tongue refuses to give utterance to the ready coinage of the brain; when imagination no longer soars, and when fancy pauses. Such a time is the present.

"I know not how to express my thanks in terms sufficiently cordial, for the attention with which you have listened to, and the interest you have exhibited in attendance on my instruction. I shall feel an individual interest in you, and each one takes my kindest wishes for his success and prosperity. I now take my leave of you as demonstrator, resigning that office, which, I trust, will be better filled by my successor."

We regret his withdrawing from the office, as there are but few who can fill it as ably as he has done.

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### COLLODION FOR FILLING TEETH.

Mr. Robinson, an English dentist, practises thus with the new article:—I have frequently applied the collodion in severe cases of toothache, arising from exposure of the nerve, with perfect success, when no persuasion could induce the patient to submit to extraction, either with or without the use of chloroform or ether. The method I adopt is, to let the patient wash the mouth with warm water, in which a few grains of bicarbonate of soda have been dissolved. I then remove from the cavity any foreign substance likely to cause irritation. After drying the cavity, I drop, from a point, the collodion, to which has been added a few grains of morphia; after which I fill the cavity with asbestos, and saturate with collodion. Lastly, over this I place a pledget of bibulous paper. In a few seconds the whole becomes solidified, and forms an excellent non-conductor of heat and cold at the exposed nerve. By occasionally renewing this, I have been able to effect a more durable stopping than with gold.

We cut the following from an advertisement to his patrons, by Dr. M. K. Bridges, of Brooklyn, N. Y.

“ We are now using the premium gum teeth of Messrs. Jones, White & Co., manufacturers of New York, for which they received a gold medal at the last American fair. The introduction of these beautiful teeth has almost entirely done away with those cumbersome, ponderous blocks of brown earthen pottery-ware that have, in the last few years, distorted the visages, bridled the tongue, distended the lips and cheeks and choked the utterance of so many victims to tooth *experiments*.”

### PREPARATION OF COLLODION.

M. Malgaigne has recently communicated to the French Medical Journals some remarks on the preparation of gun-cotton for surgical purposes. Several French chemists, at the suggestion of M. Malgaigne, attempted to make an ethereal solution of this compound by pursuing the process recommended by Mr. Maynard in the “ American Journal of Medical Sciences,” but they failed in procuring the cotton in a state in which it could be dissolved by ether. It appears that these experimenters had employed a mixture of nitric and sulphuric acids; but M. Mialhe ascertained, after many trials that the collodion, in a state fit for solution, was much more easily procured by using a mixture of nitrate of potash and sulphuric acid.

For the information of our readers who may be disposed to try this new adhesive material, we here give a description of M. Mialhe's process for its preparation. It appears, from the results obtained by this chemist, that cotton in its most explosive form, is not the best fitted for making the ethereal solution;—Finely powdered nitrate of potash 40 parts by weight; Concentrated sulphuric acid\* 60; Carded cotton 2.

Mix the nitre with the sulphuric acid in a porcelain vessel, then add the cotton, and agitate the mass for three minutes by the aid of two glass rods. Wash the cotton, without first pressing it, in a large quantity of water, and when all acidity is removed (indicated by litmus-paper), press it firmly in a cloth. Pull it out into a loose mass, and dry it in a stove at a moderate heat.

The compound thus obtained is not pure fulminating cotton; it always retains a small quantity of sulphuric acid, is less inflammable than gun cotton, and it leaves a carbonaceous residue after explosion. It has, however, in a remarkable degree, the property of solubility in ether, especially when mixed with a little alcohol; and it forms therewith a very adhesive solution, to which the name of *Collodion* has been applied: \*

\* The common commercial acid will answer. When very weak, a longer immersion of the cotton is required.



## PREPARATION OF COLLODION.

Prepared cotton	-	-	-	8	parts by weight.
Rectified sulphuric ether	-	-	-	125	" "
Rectified alcohol	-	-	-	8	" "

Put the cotton with the ether into a well-stopped bottle, and shake the mixture for some minutes. Then add the alcohol by degrees, and continue to shake until the whole of the liquid acquires a syrupy consistency. It may then be passed through a cloth, the residue strongly pressed, and the liquid kept in a well secured bottle.

*Collodion* thus prepared possesses remarkably adhesive properties. A piece of linen or cotton cloth covered with it, and made to adhere by evaporation in the palm of the hand, will support, after a few minutes, without giving way, a weight of from 20 to 30 lbs. Its adhesive power is so great that the cloth will commonly be torn before it gives way. The *Collodion* cannot be regarded as a perfect solution of cotton. It contains, suspended and floating in it, a quantity of the vegetable fibre which has escaped the solvent properties of the ether. The liquid portion may be separated from these fibres by a filter, but it is doubtful whether this is an advantage. In the evaporation of the liquid, these undissolved fibres, by felting with each other, appear to give a greater degree of tenacity and resistance to the dried mass.

In the preparation of collodion it is indispensable to avoid the presence of *water*, as this renders it less adhesive; hence the ether as well as the alcohol should be pure and rectified. The parts to which the collodion is applied should be first thoroughly *dried*, and no water allowed to come in contact with them until all the ether is evaporated.—*London Medical Gazette*.

## ALLEGED NON-REPRODUCTION OF THE TEETH.

The teeth are said to possess in themselves no power of reproduction by which an injury can be repaired. This is not strictly true. The injury to which, in a state of nature and health, they are most liable, is wearing away of the masticating surface from use. The worn surface certainly is not renewed, but the teeth increase in density, and the pulp cavity diminishes in size by the formation of dentine, so that the actual amount of dentine is not diminished, while the density is increased. In each of these actions we may recognize a form of renewal, which in some degree compensates for the loss of abrasion. If the whole act of mastication is from any cause thrown upon two or three teeth, then these naturally, by the excessive use, wear away, till at last the whole crown is exhausted. Then again, they make an effort to resist the inroad of caries, as will be shown when we come to treat of that destructive disease.—*Tomes' Dental Physiology and Surgery. London Med. Gazette, December 15.*

## METHOD OF PREPARING THE NEW ADHESIVE PLASTER.

Take of pure nitric acid of the shops, f 3 ij.; commercial sulphuric, f 3 iij. M. and *allow them to cool*; pure cotton (the "drawn cotton" of the factories is the best), grs. xv.; press the cotton into the acids, and see that it is thoroughly saturated with the acids; macerate *thirty minutes*. Then wash the cotton in a glass vessel thoroughly, by means of agitation in repeated waters, and by squeezing, until you can perceive by the taste no remains of acid. Care should be taken not to divide the mass of cotton into many parts, as it will then be more difficult to pick it open equally, and thus fit it for equal and rapid drying, and perfect solubility. After picking the cotton into a light flocculent mass, I spread it thinly on a sheet of paper, and expose it to the direct rays of the sun. I suppose that drying by artificial heat would answer the same purpose, but, as yet, I have not tried it. This quantity of cotton may be put into three or four fluid ounces of sulphuric ether, according to the consistence which you may desire the fluid to be, it being rendered more thin by the addition of ether. The above quantity of cotton, with f 3 iv., will make a solution a little thinner than recently strained honey, and nearly as transparent. It has somewhat the appearance of a thick mucilage of gum arabic. This when dried in thin layers is transparent, and in fact, for some purposes, serves as an excellent varnish. I have observed, that, on standing, the more opaque portion of the solution subsides, and leaves a perfectly transparent stratum on the surface, which, though perfectly adhesive, does not dry as rapidly as the thicker and more opaque portion. It may be shaken before being used.

*Buffalo Medical Journal.*

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## NON-MALIGNANT TUMOUR OF THE RIGHT UPPER JAW.

A Tumour was removed from a man, (Art. 21,) on his admission in St. George's Hospital on December 15, 1847. The tumour caused a slight protrusion of the cheek, and occupied the right side of the palate, from the first large molar tooth, and thence to the median line. Flat on the surface, it extended considerably into the mouth, and appeared red and spongy. In the situation of the anterior wall of the antrum it formed a projection as large as a good sized walnut. Above the alveoli it felt hard and resisting, in other parts soft and elastic. The teeth from the central incisor to the second molar, were loose and imbedded in the disease, the gums being soft and vascular. The general state of the constitution appeared perfectly healthy. The swelling first appeared, nine weeks before his admission, around the canine tooth, whence it gradually extended towards the median line of the palate, the roof of the mouth and alveoli.

During its progress it was twice punctured, blood only escaping, and after the first puncture it increased much on its original dimensions, and soon occupied the situation of the antrum.

The patient had as yet had no return of the disease.

The tumour was soft on section, and appeared to be made up mainly of an albuminous deposit.—*London Medical Gazette* December 8, 1848.

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## A COURSE OF LECTURES ON DENTAL PHYSIOLOGY AND SURGERY,

DELIVERED AT THE MIDDLESEX HOSPITAL SCHOOL OF MEDICINE.

By JOHN TOMES, Surgeon-Dentist to the Middlesex Hospital.

We have great pleasure in introducing to our readers the work of Mr. Tomes; since, if we cannot bestow on it unqualified praise, we can conscientiously recommend it as embodying the most elaborate exposition yet given of the late discoveries in minute dental anatomy and physiology, many of them the product of the author's own researches; combined with much excellent practical information, the result of a thorough knowledge of all that has been previously published on the subject by others, and of extensive and correct observation on the part of the author himself. The position which Mr. Tomes holds as the Surgeon-Dentist to a large hospital, has afforded him opportunity of obtaining extensive practical experience; and of these opportunities he has generally availed himself with equal zeal and good sense.

It is not many years since there was but one hospital in London, to which a practitioner in this branch of surgery was attached. Nor was there, even in the time of Mr. Fox—who lectured on Dental-Surgery for many years at Guy's Hospital, and who may be considered as the first who attempted the combination now happily not uncommon of the Surgeon and the Dentist—any recognition of that gentleman as holding such an appointment at that institution. We believe that his successor in the chair of dental surgery was the first who received any public appointment as an hospital Dental Surgeon; and the example then set by Guy's has since been followed by almost every other hospital in the metropolis.

When it is considered how extensive are the opportunities thus afforded, not only for acquiring a knowledge of the diseases of the teeth themselves, but for investigating the connection which so often exists between the abnormal or diseased condition of these organs, and a morbid state of others standing in a more or less intimate relation to them, it is to be lamented that so little has been done to clear up these ambiguous and obscure relations, to classify the complex and apparently anomalous cases which are so common and yet so little understood, and to force upon the attention of the professional officers themselves, as well as of the

students, and indeed of the profession at large, the importance and frequency of these secondary and relative diseases. It is surely to the well-educated and practical surgeon-dentist to a public hospital, that the profession has a right to look for the elucidation of these common and too much neglected cases ; and it is scarcely creditable to these gentlemen as a body, that they ordinarily satisfy themselves with the mere routine duties of their appointment, without an effort to use the only legitimate means of elevating their humiliated and degraded profession, to a rank and position which it can never otherwise be entitled to attain.

The work before us, although exhibiting a very creditable tendency in the right direction, has perhaps scarcely fulfilled, in this respect, all that might have been anticipated. The statistics of dental diseases, the symptoms and treatment of the morbid conditions of the teeth themselves, and of the parts immediately in connexion with them, are sometimes elaborately, and always satisfactorily treated ; but the remote nervous affections in various parts of the body, the constitutional derangements arising from these local causes, the discrimination, often difficult, but very often possible, between those affections which are, and other very similar ones which cannot be thus traceable,—these and many other matters immediately or remotely connected with the subject, have not, as it appears to us, received all the attention, even from Mr. Tomes, which his opportunities have demanded from him. Whether we have ground to anticipate any considerable improvement in the general state of the profession of dental surgery, from the leaven which in such small proportions is diffused over the crude, and heavy, and unwholesome lump, is a matter of scarcely hopeful speculation. If such a happy change should ever take place, it can only be by the renunciation of the captivating profits arising from the mechanical trade of the tooth-maker ; and it is perhaps doubtful whether it might not be better that all the operations on the mouth itself, even down to the filling of the teeth and the removal of tartar, should not be the office of the surgeon ; and the mechanical adaptation of artificial appliances for mastication, be exclusively the work of the mechanical dentist. Of one thing we are sure, that so long as the surgeon-dentist condescends to combine with the professional, this mechanical and artistic business, so long will he fail either to raise himself above the head of advertising quacks, or to elevate them, or any of them, to the status of professional character.

This is the incubus which hangs upon him, and presses him down ; and no wonder that it should be so, when the public fails to recognise the distinction. The only test which at present exists, by which the surgeon can be distinguished from the dentist, is the Membership of the College of Surgeons ; and that this is not infallible, is proved by two contrary facts, the one that Mr. Tomes is not a Member of the College,—the other that sundry advertising quacks are so.—*Brit. & For. Medico-Chirur. Review.*

## EXTRACT FROM DR. HARRIS' DENTAL DICTIONARY.

*Amalgam—Amalgama.*—A compound of mercury with another metal is called an amalgam. Within the few last years an amalgam of mercury and silver, either alone or in combination with finely pulverized silver, glass or pumice-stone, has been much used by many dentists for filling teeth, but it is thought by eminent practitioners to be the most objectionable material that has ever been employed for this purpose.

In the first place, being introduced in a soft state, it shrinks from the walls of the cavity in hardening, so as to admit the secretions of the mouth; consequently, instead of arresting the decay of the tooth, it often accelerates it. Secondly, the exposed surface soon oxydizes, turns black, and gives to the tooth an exceedingly disagreeable appearance; and thirdly, in the mouths of individuals very susceptible to the action of mercury, it is liable to produce salivation, and even in the best constitutions, it seldom fails to exert a morbid effect upon the alveolo-dental periosteum, gums, and mucous membranes of the mouth.

The above objections, it is thought, should, under *all circumstances* and in *all cases*, preclude the use of this article. Any tooth that can be substantially filled with any substance and remain in the mouth with impunity, can be filled with gold, which is the best material that can be employed in this operation.

Some practitioners contend, who, at the same time admit that it is the worst article that can, in ordinary cases be employed for filling teeth, that it may be used with advantage in "certain cases," but from the objectionable properties of the material, it would seem, that the opinions of such are erroneous.

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#### MODE OF ARRESTING HÆMORRAGE FROM LEECH BITES.—M. CARRE.

"I cut or tear a piece of agaricus of the oak (amadou or spunk) into excessively small fragments, the size of the head of a pin. Wiping away the blood from the bite I wish to staunch, with my left hand I open its edge on one side, and quickly thrust a bit of spunk into the opening; I then release the edge, and suffer it to close upon the agaric, which I maintain there with the finger, wiping away the blood as it exudes. When it becomes necessary to change the finger, care must be taken not to remove the bit of spunk with it. When coagulation has taken place, the hole is firmly corked. A warmed piece of silver coin (warmed to increase coagulation) may be substituted for the finger. A *torn* angular fragment is best."

Vidal de Cassis adopts the same measure, only he cuts his wedges instead of tearing them; and he applies a strip of agaric over all, which he maintains with a bandage.

[The method is promising, and merits a trial in these sometimes troublesome cases. The spunk can be got here at Dulluc's.—ED.]

*Jour. des Conn., Oct. '48.*

# THE DENTAL NEWS LETTER.

Vol. II.

JULY, 1849.

No. 4.

For the Dental News Letter.

MESSRS. JONES, WHITE & Co.

In your "Letter" for last October, I gave an instance of what appeared to be the *reproduction of a deciduous tooth*. The case being a novel one to me, and the facts, so far as there having been a third tooth occupying the same location, being beyond all question, I felt, and still feel, a desire, as an humble inquirer after truth, to know whether any thing of a similar nature has been observed in the experience of others, whose opportunities for observation have been greater than mine. The case, in my judgment, seems to possess some interest, as throwing light upon the *rationale* of nature's operation in the production of those anomalous organs which come under the name of THIRD DENTITION.

In your April number, I find some reflections upon the above case, by Thos. J. Ward, of Wetumpka, Alabama, in which he very candidly gives it as his opinion, that such productions "cannot be accounted for upon any sound physiological principles," and hence concludes *this* to be "one among the many instances where nature has baffled the conception."\*

Now, I beg leave, respectfully, to differ with Dr. W., both in his premises and his conclusion. I believe, in the first place, that such productions *can* be accounted for, upon perfectly sound physiological principles; —and, in the second place, that, whether accounted for or not, instances of a very similar character do sometimes occur; and, moreover, that nature's laws have not been violated in the production of them; but, on the contrary, that they are beautiful illustrations of the extent of her resources, under circumstances favoring their development, and in perfect harmony with all her operations, however little we may know of their *modus operandi*.

Will Dr. W. pretend to say that the many instances of *third*, and even *fourth*, dentition that have been related by different writers, are all "egregious errors and misconceptions?" If he does, he is certainly either grossly in the dark or obstinately

\* In the second period of Dr. W.'s article alluded to, there is a *supernumerary* THAT, which I think it would puzzle him fully as much to account for upon sound *philological* principles.



incredulous. He might as well deny any other "freak of nature," if he choose to call it such, because, forsooth, he has not seen any thing like it in *Wetumpka*!

But perhaps he will tell us that a *permanent* tooth may sometimes be reproduced, but, that a *deciduous* one never can. And why not? What theory can be applied to the reproduction of the one which cannot be applied to the reproduction of the other? I believe it is now generally admitted that the formative process in the original production of both these classes of organs is essentially the same. They both originate from the mucous membrane. The duplication of this membrane commences in the same way in both, and passes through the same routine of changes, producing, first, the papillæ, which, in the temporary class, rise from the floor of the primitive dental groove, and, in the permanent class, from the bottom of the secondary dental groove, which had previously deepened into a "cavity of reserve." In both classes dental follicles are produced, and afterwards, by the closure of their opercula, shut sacs are formed. The papillæ then become pulps, which produce the proper membranes for the secretion of the bony structure. Now, I ask, if accidental causes may set in operation a similar succession of results in the production of a second *permanent* tooth, why not, also, in the production of a second *temporary* one?

I hope I shall not be considered *uncharitable* towards Dr. W., when I give it as my opinion, that he has not given this subject sufficient investigation. When he speaks of the pulps of the deciduous teeth giving off cords that "form the pulps of the SECOND or *permanent* set," he seems not to be very clear in his *conceptions* of "the manner in which nature carries on her operations in the production of these beautiful organs." There are no cords given off by the pulps of the teeth for this purpose. If he will examine a little further into the "anatomy and physiology of the teeth," he will find that the only "cords" which can be discovered, are those which connect with the surface of the gum. These cords had their origin in the inflections of the mucous membrane, which commenced in the secondary dental groove, about the third or fourth month of intra-uterine existence, and serve, perhaps, as *gubernacula*, or *itinera dentium*, in the process of "odontocie."

The Doctor, however, gives us the history of a case "which came under his own observation," which, in his opinion, *justifies* him in saying "that all those notions concerning *secondary deciduous* or cutting THIRD teeth, &c., originate from a misconception of nature's mode of operating." Now, I acknowledge my perceptions are too obtuse to discover the analogy between this case and the one in point; or, at any rate, to see how it is susceptible of so broad an application. I don't like to say it, but I really thought, on reading the account of this case, that (as the Doctor



beautifully expresses himself) "there must be something rotten in Denmark" here. The idea that this case is a very extraordinary one to come under the observation of one who has been *paying attention* to matters of this kind for *ten or twelve years*, is strange, to say the least of it. But that the Doctor should have left the impression on his patient's mind, that it was a *second* and not a *first* tooth that he extracted, is *passing strange!* Could he have had any doubts, himself, on this subject? He tells us that he is "compelled to say, (after mature reflection, I suppose,) instead of this being a third production, it is only a second." Then hide your diminished heads, ye propagators of so monstrous a doctrine as that of the reproduction of a tooth. The question is now settled. Dr. Thos. J. Ward, of Wetumpka, Alabama, has discovered, by his own experience, that such *notions* all "originate from a misconception of nature's mode of operating!"

Excuse the prolixity of this communication. My only object is to lead to correct observation—as this is the only true basis for the establishment of sound physiology.

Respectfully, yours,

JAMES FLEMING.

Harrisburg, Pa., May 25th, 1849.

For the Dental News Letter.

## A CASE OF SPONTANEOUS HEMORRHAGE FROM THE MUCOUS TISSUE OF THE MOUTH.

May 25th, I was requested by Dr. C. A. Harris to see a patient who was suffering from hemorrhage, and who had sent a message to him in haste.

The patient was a gentleman holding a highly respectable position in his social relations, aged about 35, of a plethoric habit, with a strumous diathesis, and an habitual dram-drinker.

The history of the case was as follows:

About two weeks previous to my visit, he found that he expectorated blood, and, on examination, found that it flowed from about the fang of a carious tooth, the right first superior bicuspid. The hemorrhage at this time did not excite alarm, but was a source of annoyance to the patient, who called on Dr. M., a respectable dentist of this city. The dentist extracted the fang of the carious tooth, and used a compress for the socket of the same, made from cork, wedged between the two teeth standing each side of the socket of the extracted tooth. This method was successful in arresting the hemorrhage, and the patient was not further troubled until about 1 o'clock in the morning of the day I saw him, when he awoke, his mouth was filled with blood, and considerable quantities having been discharged on his pillow during sleep. Feeling alarmed at this unusual state of affairs, a message was despatched by his friends for the family physician, who, after examining the case and making some brief suggestions,

he expressed a wish that Dr. Harris should be called in. Dr. Harris, at this time, found the blood flowing from the mucous tissue, about the necks of the left superior molars. A compress of cotton batting, saturated with *tinct. of nut-galls*, was applied over the parts from which the blood flowed. This controlled the hemorrhage for a few hours, when it again broke out with increased violence, and a message was dispatched to Dr. Harris.

It was about 5 o'clock, P. M., and at this stage of the case I saw the patient. His pulse was about 94, full and bounding, with an anxious and excited countenance. On examining the mouth, I found a full denture in the superior maxillary, except the right first superior bicuspid, which had been extracted at the time and for reasons above named. The anterior superior teeth were irregular, and the left superior cuspidatus stood on the labial side, and considerably without the dental arch. A number of the teeth were marked with superficial caries, and all of them were coated with a thin layer of tartar. The mucous tissue was pale, except at the margin of the gums, near the necks of the teeth, where their apices was slightly thickened and red. The hemorrhage was wholly confined to the superior portion of the buccal cavity. The labial portion of the gum, covering the socket of the left second superior molar, marked the point from which the blood oozed most rapidly, although the entire mucous surface covering the superior maxillary and palate bones was implicated in the hemorrhage.

The highly excited nervous condition of the patient, which was dependent on the use of alcoholic beverages, precluded recourse to the use of the lancet, and caused me to rely principally on local treatment. At the suggestion of Dr. Harris, I proceeded to take a wax impression of the whole of the superior jaw, preparatory to striking up a metallic plate closely adapted, and covering the entire surface of the same, which was proposed to be used as a compress. Observing that the meddlesome interference of the patient's fingers and tongue accelerated the flow of the hemorrhage, and as a preventive of their further interference, and also with a faint hope of obtaining sufficient pressure upon the parts to control the egress of the blood, I saturated cotton batting with *tinct. of nut-galls*, forcing layer after layer of the cotton between the cheek and alveolus processes. I then extended the mouth, and in like manner filled that cavity until it would hold no more, and then ordered the patient to close his mouth, and applied a bandage to retain the under jaw firmly and in a fixed position.

At 8 o'clock the same evening the patient was visited by Dr. Harris and the physician. The cotton compress was found to have controlled the hemorrhage, and after prescribing a dose of *Sul. Magnesia* and replacing the compress for the next succeeding twelve hours, a cure of the case was secured.

C. O. CONE, M. D.

For the Dental News Letter.

## AMALGAM FILLING.

MESSRS. JONES, WHITE &amp; Co.

*Gentlemen*,—I have been requested to make known, through the medium of the "Dental News Letter," some facts in relation to a tooth which I recently had extracted. The author of this request states to me, that no similar case has yet been made public, and supposing, with him, that it may be of some practical value, I will give it to you as clearly as my imperfect knowledge of your art, and the anatomy of the parts concerned, will allow me.

About four years since I applied to a dentist to extract a molar tooth in the under jaw, which contained a large cavity, and had been aching for a considerable time. He dissuaded me from it, and recommended the destruction of the nerve by the ordinary process, with arsenic, and the filling the cavity with a preparation of mercury and silver, which was then much in vogue. I consented, and it was done. After a few days the soreness of the tooth subsided, and it became as useful to me as a sound tooth, and has been so up to within the last month, excepting a trifling tenderness, after exposure to an unusual degree of cold. A short time since I was required to ride several hours on quite a chilly night, and became very cold. On the next morning the tooth in question pained me severely, and towards night became agonizing. I had it extracted, and, on examination, found in the little tuft of cellular structure on the point of each fang, a number of small globules of fluid mercury. I think on the point of one, there must have been at least a dozen embedded in different parts of the structure before mentioned. All, together, would have weighed something over a grain. Upon removing the fleshy matter from the point of one of the fangs, a minute shiny point was discovered. Suspecting this to be a fine tube communicating with the interior of the tooth, I pared down the end of the fang for perhaps twice or thrice the thickness of this paper, and still found the shiny point on the cut surface, which confirmed my suspicions. How much mercury is still in my jaw I cannot tell, nor what agency it had in producing the pain I suffered, but of this I am sure, no other tooth of mine shall be filled with the same preparation. You can use this statement as you please. If the facts are doubted, I can refer you to V. McClure, M. D., who extracted the tooth.

Respectfully,

A. B. CHAMBERS.

*Warsaw, Ky., May 30th, 1849.*

P. S.—I am told that ptyalism sometimes results from the absorption of the mercury. I have observed nothing of the kind in my case.

A. B. C.

For the Dental News Letter.

# REPORT OF THE PROCEEDINGS OF THE TWO LAST MEETINGS OF THE PENNSYLVANIA SOCIETY OF DENTAL SURGEONS.

A Stated Meeting of the Society was held February 6th, 1849. Dr. E. PARRY in the chair.

Minutes of previous meeting read and adopted.

Committee on Library reported progress, which was accepted.

The committee to whom was referred Messrs. Jones, White & Co.'s teeth, offered the following report:—

Your committee appointed at last meeting to examine and inquire into the merits of Jones, White & Co.'s porcelain teeth, respectfully report, that they have attended to their duties, and concur in all the points of improvement which they claim for their teeth. Observing that the American, Franklin and Maryland Institutes have awarded them medals for the same, your committee deem it unnecessary to make further comment, hoping that well-directed exertions may carry them to still greater perfection.

Your committee offer the following:

*Resolved*, That the thanks of this Society be awarded Messrs. Jones, White & Co., for their meritorious production of porcelain teeth. Mr. C. C. Williams, Dr. J. D. White and F. Reinstein, committee. The report was accepted, and, on motion, the resolution accompanying the report was adopted.

Dr. J. D. White offered the following:

*Resolved*, That a premium of twenty-five dollars, in a gold medal, be awarded for the greatest improvement in the manufacture of porcelain teeth, the samples to consist of gum, plate, molars, bicusped, and pivot teeth, twenty-five of each.

The reception of specimens to close 1st October, 1849. [At a subsequent meeting the time was changed to 1st March, 1850.] If, at the expiration of that time, none are thought worthy of such premium, they shall be returned to the manufacturer, and the premium stand open one year longer.

The resolution was adopted, and a committee of three appointed to carry it into effect.—Mr. C. C. Williams, Drs. J. D. White and E. Parry.

The above committee was instructed to have the foregoing resolution published in Dental News Letter, Dental Intelligencer and Dental Recorder.

A communication from T. W. Evans was read, when Dr. J. D. White offered the following resolution:

*Resolved*, That Thos. W. Evans and Robt. Arthur, D. D. S., having been active members of this Society, and they having left the State of Pennsylvania, we, the undersigned, offer them as worthy to become honorary members.

Signed,

J. D. WHITE, M. D.,  
C. C. WILLIAMS,  
A. R. JOHNSON.

Dr. J. D. White now presented the Society with a copy of Tomes' Lectures on Dental Physiology and Surgery, which, on motion, was accepted, and the thanks of the Society returned to Dr. White for the valuable donation.

A specimen of teeth from the manufactory of Ash & Son, London, was presented to the Society by Dr. J. D. White, and a committee appointed to examine the same.

Dr. J. D. White, Dr. S. T. Beale and Mr. S. L. Mintzer, committee. Adjourned.

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A special meeting of the Society was held April 4th, 1849. Dr. Ely Parry in the chair.

Several committees reported progress.

Dr. E. Parry presented the Society with a copy of Harris' Principles and Practice of Dental Surgery, second edition; and a vote of thanks returned him.

A communication from Mr. T. W. Evans, of Paris, in reference to an amalgam discovered by him, which, on motion of Mr. C. C. Williams, was referred to a committee of five. Messrs. Reinstein, Johnson, Williams, W. R. White and S. L. Mintzer.

The resolution in reference to premium was reconsidered, and the following adopted:

*Resolved*, That a premium of twenty-five dollars, in a gold medal, be awarded by this Society for the greatest improvement in porcelain teeth, viz:—single gum, molar and bicuspid, plate and pivot teeth; twenty-five of each kind to be sent to either of the following committee. Also, resolved, that a medal of twenty dollars be awarded for the best block teeth that may be presented. The reception of specimens to close March 1st, 1850.

*Committee on Premiums*.—Mr. C. C. Williams, Dr. J. D. White, Philadelphia; Dr. Ely Parry, Lancaster, Pa.

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### EVANS' COMPOUND FOR FILLING TEETH.

Sir,—I shall be obliged if you will allow me, through the medium of your journal, to make known to my professional brethren, the composition of an amalgam invented by myself some years ago, which I have used with much success for a length of time, in some peculiar cases, and have experimented with it extensively in filling carious teeth. It is composed of chemically pure tin, prepared with much care, to insure its being free from any other metallic substance, and combined with prepared cadmium, in small quantities, and mercury. In using it, more or less mercury should be employed, as may be required to make it more or less plastic.

“The cavity of the tooth being previously thoroughly freed from carious matter, can be carefully filled with the paste thus formed. In the course of a few minutes it hardens into a solid, and gradually acquires a still firmer consistency and toughness,

exhibiting a whitish color, or, if cut or burnished, a metallic lustre, like that of pure tin.

“The advantages of this filling, I believe, are such as are possessed by no other amalgam. It retains its color perfectly, neither oxidizing on the external surface, nor on that applied to the cavity, and of course it does not discolor the tooth itself. It fills each crevice of the cavity, and, effectually excluding moisture, and all kinds of deleterious matters, prevents the recurrence of caries, and becomes sufficiently hard to withstand the friction of mastication. To these most important advantages may be added others—*e. g.*, it is easily and quickly prepared, without the trouble of heating it, as is the case with some of the amalgams hitherto used. It is readily applied to the cavity of the teeth, and without the disagreeable creaking sound which attends the employment of other preparations. It will not amalgamate with, or injure any gold clasps or plate bearing artificial teeth, which may be placed in contact with it; and in case of its removal being necessary, it can be cut out as easily as a good filling, as it forms a tough, almost ductile substance, and not a hard, brittle one, like the ordinary amalgams.

“I have submitted it to the inspection and trial of some of the best dentists here and in London. As far as their opportunities of investigating it have hitherto extended, I think they fully agree with me as to its advantages. It is, I believe, the best filling hitherto used, in those cases where amalgams are thought to be useful; and some of my friends are willing to award it even higher praise than this.

“Believing it, therefore, to be a useful discovery, I wish to place it in the hands of the profession, and I make this communication to you, at the same time that I publish a similar one in France, and in my native country, America, where I first used it.”—*Lancet*.

We add a few passages from a letter from Mr. Evans :

London, April 20, 1849.

MESSRS. JONES, WHITE & Co.

*Gentlemen*,—Since my last to you, I have received many accounts from those gentlemen to whom I have submitted my compound. They have tested it, and all agree in saying that it is *the article* that has long been desired. Time has proved it to answer more than I dared hope in the commencement. The first in the profession in London have pronounced it the very best ever invented. Finding this, I cannot feel myself justified in withholding it from the profession. I propose publishing it freely. I have never had any thing belonging to dental science that I wished to conceal, and this being an article intended to benefit humanity, I, therefore, wish every one to be the possessor of it.

I think it must supplant the many substances which are used,



most of which I cannot but feel are very deleterious ; this, *I know*, is not. There seems but one opinion as to its being the best article in the form of an amalgam.

We copy the following circular:

EVANS' AMERICAN COMPOUND FOR FILLING TEETH.

*Each Package containing 1½ oz., Five Dollars.*

A metallic paste, suitable for the purpose of filling teeth, and, at the same time, destitute of all injurious influences, has been ardently sought for in all countries, as well by Chemists as by Dentists of every grade ; many, having become weary of the search, have abandoned it as an impossibility.

The compound now presented to the profession, was invented in America some years since by Thos. W. Evans. The peculiar virtues of this compound are found to be the following :—

There is in it no ingredient that can possibly render it improper to be employed in the most delicate constitution. It is perfectly harmless, both as it respects the general health and the teeth themselves.

Almost *immediately* after introduction into the cavity it becomes hard, and as it hardens it *expands*,—thus making a more perfect union between the filling and the tooth than is possible by any other filling which is applied in a plastic state.

A cavity filled with this compound is altogether impermeable to the fluids of the mouth, and strong tests have proved its perfect insolubility.

The most delicate comparison of the weight of the filling at the time of insertion, with its weight after having been in the mouth, proves that it undergoes no change whatever in this respect.

As regards the color, this compound approximates the color of the teeth ; insomuch, indeed, that it often requires an experienced eye to detect it in the mouth.

It is found not to become dark, or to undergo the slightest change in color, but always to retain the color it assumes upon hardening—which is not the case with the pastes or cements that have been heretofore in use.

It is not only easy of application, in any given case, but if from any cause it is requisite to remove the stopping, it can be affected without difficulty, inasmuch as it becomes a tough metal, and is capable of being cut with facility.

Much time is saved in its preparation, no heat being required as in some other preparations in use ; it has not the disagreeable creaking noise which attends the employment of other amalgams.

It will not amalgamate with or injure any gold clasp or plate bearing artificial teeth which may be placed in contact with it.

Believing myself to be the inventor of this compound, I have made no secret of it, but have published its composition in America, in the medical journals of London and in Paris.



Having been urged by many distinguished members of the profession to have it manufactured under my superintendence, to secure accuracy—as much care is required in its preparation—that it may be fully tested, I have consented to do so.

THOMAS W. EVANS, *Dentist*.

15 Rue de la Paix, Paris.

**MANNER OF APPLYING THE COMPOUND.**—Take, in bulk, two parts of the filings to one part of the paste, rub them well together, either in the hand or upon a piece of buckskin, that they may thoroughly combine, and use as speedily as possible.

In cases where it is convenient, apply immediately, and rather in a stiff state—it is found to make the better filling. In cavities upon the grinding surface, it is very applicable in this state as well as desirable to have it as hard as possible.

If, from the situation of the cavity, it is difficult to apply a stopping immediately, it may be prevented from setting or hardening so rapidly by placing the mass, after it has been mixed, in the palm of the hand, and closing one finger upon it, by which means it can be retained in a soft or plastic state for several minutes.

From the London Lancet.

## NEW APPLICATION OF CHLOROFORM.

I have lately been successful in the application of chloroform, locally, as a preventive of pain during the operation for the removal of diseased teeth.

The plan which I adopt is, first to remove as much of the carious portion of the tooth as possible, so as to bring the chloroform into immediate contact with the nerve of the tooth itself, by applying to it lint or cotton wool, which has been previously saturated with it. This causes the most violent pain to subside, soon after which the tooth may be removed with comparatively no pain. In fact, by the description of those on whom I have operated, there is no pain but that occasioned from the unavoidable contact of the forceps with the gum.

In thus applying chloroform, the advantages over inhalation are obvious, since the quantity used is less, and the risk to the patient is reduced to a minimum, he being conscious during the whole operation. Pain is suspended, and consequently severe and difficult operations for the removal of stumps and teeth may be effected with security and comparative ease, to the permanent comfort of the sufferer.

That it might also be made use of as a curative means for the ultimate preservation of the tooth, by means of stopping, must also follow as a natural consequence; but as what I have already said is sufficient to the adoption of its use for the prevention of pain in the teeth, I will take no more room than to subscribe myself

Yours,

C. SPENCER BATE.

# THE DENTAL NEWS LETTER.

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JULY, 1849.

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## OUR THIRD VOLUME.

As this is the last number of the second volume, it is necessary for us to say something in reference to the next, and what shall we say? we can at least say what we would like it to be—our first volume was published with but twelve pages to the number, the second was doubled, or, twenty-four pages to the number, and we would be pleased to increase the size of the third to thirty-six or forty-eight pages, and would cheerfully do so, had we the assurance on the part of the profession that they would sustain it in the way of communications.

If we could manage to secure a good list of regular contributors, beside occasional communications from others, we would then have no fear for the result, but would gladly enlarge the size with a fair prospect of increased usefulness.

Now, gentlemen, what shall it be? we put the question to you. Give us the evidence on your part of a disposition to sustain an enlargement in the way of contributions, and we will cheerfully take the risk of the increased expense. Let every man then who feels an interest in the work, or, who has the welfare of the profession at heart, write us, that he will obligate himself to furnish us with one or more suitable original articles for publication during the year, and if the number be sufficient to warrant it, we shall be enabled to consummate our desires. Write at once, that we may know what to depend on.

We have thought, that the small size of the "News Letter" has deterred many from contributing to its pages. If this supposition be correct, the objection holds good no longer, as it remains with them to say whether it shall be enlarged or not.

To those who have contributed, we return our thanks and take this opportunity to request a continuance of their favors.

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We have made copious selections from Tomes' Lectures, believing them to be of more interest than any other selections we could offer our readers.

We believe this to be the most original work on Dental Physiology and Surgery that is in print, giving abundant evidence of a close application to the subject and a thorough acquaintance with it.

Dr. A. B. must excuse us for not publishing the article referred to. To do so would only prolong what would be *now* an unprofitable discussion, besides it has been published once in a dental periodical, and has therefore been read by most of the profession.

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It will be perceived by an advertisement in this number, that the Homœopathic Medical College has issued its second annual announcement, and, we understand, with flattering prospects. Without committing ourselves in favor of the particular doctrines of the school, we are free to express our approval of its having been established, inasmuch as many of the intelligent public seem to desire it. And we are also gratified that the faculty is composed of physicians thoroughly versed in medical science—allœopathy as well as homœopathy—who ever have maintained the most respectable standing in the community as physicians.

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We acknowledge the receipt of a copy of the *Valedictory Address to the graduating class of the Baltimore College of Dental Surgery*, by E. B. GARDETTE, M. D., of Philadelphia.

This is a plain, but well written address, and deservedly entitled to attention. As to the sentiments expressed, we give the words of a friend whose opinion we value highly: "It is just to my mind. Indeed I have not met with any thing on the subject that so fully accorded with my own views, and pleased me so much."

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*Annual Tabular Sheet of the American Society of Dental Surgeons.*—This sheet, in the hands of a careful, observing and industrious dentist, could be made interesting and useful, but we fear few will take the trouble; however, the object is praiseworthy and therefore commendable.

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*The American Journal and Library of Dental Science, for April.*—This number is some two months behind its date of publication.

The library department occupies the principal part of the number. We find the first part chiefly occupied with an address delivered before the alumni of the Baltimore College, by J. H. Foster, M. D., of New York, which address we can commend, with one or two exceptions, one of which is, that the Dr. should so far step aside as to make an attack upon the New York State Society; however, they are abundantly able to defend themselves, and if they feel aggrieved, are ready enough to take up the cudgels.

The Doctor's address is lengthy, but abounds with flowers, and closes with a beautiful allegory or fable, which "spoke to our heart."

*The New York Dental Recorder for July.*—This periodical still keeps up in interest, with its earlier numbers, any reader will readily perceive that its editor is a practical man.

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*The New Graeffenberg Water Cure Reporter.*—This periodical abounds of course with Hydropathy. If some persons we know, were to apply this treatment to their mouths, they would, we are convinced, be more pleasant companions, beside the great benefit they would receive from it.

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*New Jersey Medical Reporter, and Transactions of the N. J. Medical Society. Joseph Parrish, Editor.*—This work is filled with matters of interest to the physician, and needs no recommendation from us.

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*Evans' Compound for Filling Teeth.*—We have received from Paris a supply of this article. An article on the subject will be found in this number.

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“Dr. Charles Jackson, of Boston, has received from the French Government the Cross of the National Order of the Legion of Honor, in acknowledgement of his high scientific attainments, and for having made the discovery of etherization, which is so beneficial to mankind. Dr. Jackson has also received from the King of Sweden a splendid gold medal, as a testimony of the respect in which his character and scientific services are held by that monarch.”

We copy the above from a newspaper, and the following from Tomes' work on dentistry, an English publication. Dr. Jackson, it will be seen, is considered the discoverer of etherization, in France; while Dr. Morton has the credit of it, in England.

“We live in an age that will be long famous in the annals of medical science, for the discovery and full recognition of the principle that the powers of voluntary motion, and of sensation, may, for awhile, be suspended, without materially endangering the life and health of a healthy individual; and that this condition can be adduced at will. To Dr. Morton, a dentist of Boston, we are indebted for this discovery. He found, that by inhaling the vapor of ether, mixed with atmospheric air, this state is induced; and, when so induced, he removed defective teeth without the patient being conscious of the operation.”

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We have just received the tenth annual announcement of the Baltimore College of Dental Surgery. The advertisement will be found on another page.

We make the following liberal extracts from Tome's Lectures on Dental Physiology and Surgery, a valuable work, which should be in the hands of every dental practitioner.

#### PLUGGING OR STOPPING TEETH.

A well-stopped tooth, if the operation has not been too long postponed, is perfectly restored to its former durability and usefulness. I removed last year, from an old man, a molar tooth that had been plugged for thirty years, and had been serviceable till within the last two years, when it became loose from absorption of the socket. You will often see teeth that have been stopped ten and twenty years.

Seeing, then, that so much may be gained in preserving the teeth, by this operation, you cannot give too much attention to its practice; for, while it is among the most useful, it is the most difficult operation the dentist has to perform. The operation is divided into two parts; the preparation of the cavity for the reception of the plug, and the insertion of the plug. In the preparation of the cavity two points must be gained, otherwise the subsequent steps of the operation will be ineffective.

The first of these is, to completely remove all the softened dentine; the second, to get a firm and regular orifice, of sufficient size to enable the plug to be inserted, and at the same time not too large. If the cavity in the tooth be large and the opening small, it will be almost impossible to make the plug solid in those parts of the cavity which are overhung; and, on the other hand, if the opening be large, and the cavity small and rounded at the bottom, like a saucer, the plug will not be retained. The best form of cavity has a circular orifice, with perpendicular walls; in fact, cylindrical.

The situation of the disease must regulate our manner of proceeding. If the cavity be situated in the opposed side of a molar, the tooth must be cut away with a sculper or graver, till an excavating instrument can be used. If the sides of the front teeth are affected, a piece of vulcanized caoutchouc should be strained tight, and then introduced between the teeth; this, in endeavoring to regain its former figure, will separate the teeth sufficiently for the operator. When the masticating surface of a tooth is carious, there is no difficulty in the operation; if the extent of the disease be slight, it may be removed by a broach of proper size. Having reduced the cavity, as nearly as attainable to the conditions I have described, the chips must be washed out, and the cavity wiped dry with cotton-wool, and the plug inserted.

In making the plug, our aim must be, first, to so perfectly fill the cavity that all moisture shall be excluded; and, secondly, to so form it that it shall be sufficiently hard to resist, equally with the tooth, the wear of mastication. Unless these two conditions are fulfilled, our work will be imperfect, and ultimately fail.

Gold or tin foil are the best materials for making plugs. Whichever of these be chosen, the method of use is the same.

There are four methods of introducing foil for making a plug. In one the metal is folded into narrow strips, proportioned in width and thickness to the size of the cavity. One end of the strip is, by means of a conveniently shaped stopping instrument, pressed to the bottom of the cavity. The strip is then bent, and a fold passed to the bottom of the hole, leaving the first fold projecting above the surface. Fold after fold is introduced, till the cavity is tolerably full. A wedge-shaped instrument is then introduced, and the gold pressed towards the walls of the cavity; more gold is, by a similar process, pressed into the cavity so obtained. This process is repeated till the wedge cannot be forced into the plug. A flattened instrument is then used to compress the gold in the cavity. When we can make no further effect on the surface of the plug by compression, the surface is filed smooth and burnished. By a careful adherence to this plan, we make a plug composed of layers of metal, arranged parallel to the walls of the cavity, and therefore not liable to fall to pieces or come out. But, on the other hand, had we made the folds at a right angle to the walls, and parallel to the bottom of the cavity, layer after layer would have peeled off, till little or none of the plug remained, and the decay would have proceeded to the destruction of the tooth.

In the second method, a piece of foil of sufficient size is rolled hard, and spherical between the thumb and finger. This is gradually forced into the cavity, care being taken to get it well in round the outer walls. When the plug has been rendered as solid as possible, the superfluous portion is cut or filed off, and the surface burnished.

The third method of using metallic foil is a combination of the two preceding ones. A piece of foil that will readily go into the cavity is rolled up loosely. When in its place, a wedged-shaped instrument is passed into its centre, which has the effect of spreading the gold towards the walls of the cavity. The centre is gradually filled with folds of gold in the manner I have described. The wedge is used again and again, till it can no longer be made to enter. The gold is then compressed on the surface, and the superfluous portions removed, and the surface burnished. When the plug is finished in either of the manners I have described, the circumference should be examined by a sharp steel probe. If this can be made to enter at any part, the hole so made should be enlarged by thrusting in an instrument as large as can be introduced, and the hole filled.

In the fourth method of plugging, the foil is rolled into short lengths, proportioned to the depth of the cavity to be plugged. These, with the assistance of a fine pair of forceps, are packed into the tooth, much in the manner you would proceed to pack cigars into a tumbler. A wedged-shaped tool is from time to



time thrust between the lengths of the foil, to force them towards the walls of the cavity. When the tool can no longer be made to enter, the surface of the plug is cut level with the surface of the tooth, and burnished.

Either of the foregoing methods of plugging will answer, if well done. But, of these, I prefer introducing the metal in folds. The situation of the cavity, and also the size, will have something to do with the selection of the plan of operating. Then, again, one person will be more apt at one manner of procedure than at another. All these matters of detail must be learned in practice. I should exhaust your patience, and greatly exceed my limits, were I to attempt to describe every variety in form and situation of cavity, and every modification and plan useful in plugging.

Where the cavity of a tooth is so large that the walls are too thin to bear the pressure necessary to the insertion of a gold or tin-foil plug, the amalgam of silver or of palladium may be advantageously used. Having prepared the cavity as for the use of foil, a little mercury is triturated in a glass mortar with a small quantity of precipitated silver or palladium, till they unite and form a paste, which is well squeezed in a piece of wash leather, to force out as much as possible of the mercury. The paste is then again rubbed in the mortar, or in the palm of the hand, and then introduced into the cavity. The cavity, however, must be first well dried with lint, and care must be taken to get the amalgam in close contact with the whole circumference of the cavity. The plug so formed hardens in a few hours, after which the surface should be well burnished.

The American dentists condemn this kind of plug, as it seems to me, somewhat unjustly. It is undoubtedly far inferior to either the gold or tin-foil plug, but it can be used where they cannot, and it is surely better than none. I have seen a mere shell of a tooth, that would have broken away on the first attempt at introducing foil, rendered useful for years by an amalgam plug.

Before leaving the subject, let me warn you that unless the cavity be well prepared by the total removal of the softened dentine from the walls, and by getting a good, firm, and well-shaped orifice, free from acute angles, no plug will answer, and least of all, the amalgam. It will fall out or become loose within twelve or eighteen months, and frequently in much less time, and decay will proceed. Teeth plugged with silver amalgam usually become stained of a deep blue-black color. When the palladium amalgam is used, there is little or no staining, if the excavating be perfect. The latter amalgam is, therefore, preferable.

#### PIVOTING TEETH.

The Americans sometimes use compressed wood instead of gold wire for the pivot. You will sometimes find it very convenient to adopt this plan in renewing a pivot, or when the hole in the stump is necessarily rather large.



Pivoting, though the neatest, is more frequently followed by mischievous results than any other operation performed by the dentist; and so common are these, that many surgeons consider the operation unjustifiable. Some degree of pain and tenderness is almost always felt during the first few days after the operation, and unfortunately it is not uncommon to have considerable inflammation, ending in suppuration, as in the case I cited to you in Lecture XIII. But the consequences may be even worse than in that case.

The following statement was placed in my hands by a medical man who had some knowledge of the case which is related. — — —, Esq., aged 25 years, tall and thin, but apparently in very good health. On his marriage trip he visited Paris, and there had the misfortune to break off a front tooth. Wishing to conceal the accident from his wife, he went immediately to a dentist. The tooth was pivoted (and I have no doubt carefully, for the dentist was one with a great and just reputation), and the necessary concealment seemed insured. From the time of the operation, however, he had severe pain in the stump, which pain increased for four or five days, when he left Paris for Rouen. Upon arriving there the pain had become excessively severe; he consulted a medical man, but it was too late. Trismus came on within twenty-four hours, and was soon followed by tetanus and death.

#### HEMORRHAGE FROM THE DENTAL PERIOSTEUM.

It occasionally happens, after the extraction of a tooth, that blood continues to flow from the wound till the life of the patient becomes endangered; and there are many cases on record where life has been lost from this cause.

Usually the bleeding ceases within a few minutes after the removal of the tooth, and the alveolus becomes plugged with coagulum. In hæmorrhage the coagulum forms, but blood oozes by the side. The cause of this state arises from a peculiar condition of the whole vascular system, which is termed the hæmorrhagic diathesis, or perhaps sometimes from the conditions of the vessels of the part only. The patients themselves generally tell you that they are subject to bleeding from the nose, and that they have often the greatest difficulty in checking the flow of blood.

I have met with three cases of hæmorrhage from the alveolus within the last five years, and these have occurred recently.

The first was in a lad of eighteen. I removed for him a second bicuspid of the upper jaw; two days afterwards he returned with a pale and wretched countenance, and said that the gum had bled at short intervals ever since the tooth was drawn. The alveolus was cleared of coagulum, and a piece of lint, tightly rolled into the shape and size of the root of the tooth, was loaded with a leaf of the matico reduced to powder, and then introduced into the

alveolus. The bleeding ceased within a few minutes, and did not again return.

The second case occurred in a female—a robust cook. A molar of the lower jaw was extracted; 36 hours afterwards she returned, and was evidently suffering from loss of blood. The gum, she stated, had bled ever since the tooth was drawn. A leaf of matico was softened and rolled up, with the under side outwards, and introduced into the bleeding socket, the coagulum having been previously cleared away. The hæmorrhage stopped within a few minutes. Three days afterwards the young woman's mistress wrote to say that the gum had not since bled, but that her servant still felt very weak.

The third case occurred in a young man of five-and-twenty. He returned after the hæmorrhage had lasted only six hours. Similar treatment was adopted, and with the same favorable result.

Previous to the introduction of *piper angustifolia matico* by Dr. Jeffery, the common practice was to roll up a piece of lint, and, after saturating it with a strong styptic, such as the muriated tincture of iron, or a solution of nitrate of silver, to introduce it into the bleeding alveolus, there to be retained by a compress of lint pressed on the part by the closure of the jaws. The mouth is kept shut by a bandage passed under the chin and over the crown of the head. A narrow strip of lint, saturated with a styptic, and gradually introduced into the bleeding alveolus, is, in some cases, a more convenient manner of application than the rolled plug.

Dr. Reed, of Edinburgh, has invented an instrument, of which he has published an account, for producing pressure on the bleeding part in maxillary hæmorrhage.

Should the ordinary methods of treatment fail, the dentist may succeed in arresting the bleeding by making a plate of metal, or other unyielding material, to fit accurately the surface around the bleeding part, and then confining it either by compress or by ligature to the adjoining tooth or teeth. This will prevent the blood from escaping out of the alveolus. Such an apparatus must be specially constructed for each case, and might be made in one or in two hours at most. In great need, a piece of sealing-wax, moulded to the form when warm, might prove of great value.

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#### ESCHAROTICS.

Escharotics may be used in a diluted form, so as to destroy the surface only, or they may be applied in a more concentrated state, to kill the whole body of the pulp.

Most of you know that an ulcerating or a suppurating surface sometimes becomes extremely sensitive and painful, and that immediate relief is obtained by brushing over the surface of the sore with a weak solution of nitrate of silver. A similar condition, I apprehend, now and then obtains with the exposed surface of the dental pulp, for we occasionally find that a solution of nitrate of

silver, gr. iij. or gr. iv. to the  $\mathfrak{z}$ j. of distilled water, will allay toothache after the failure of what at first seemed more promising treatment.

If, in spite of palliative treatment, the pain in the tooth still continues, and we have reason to believe that the disease has not extended from the pulp to the dental periosteum, escharotics sufficiently powerful to destroy the body of the pulp may be used, and thus cut short the pain, by the destruction of the pained organ, without necessitating the loss of the tooth. Either of the mineral acids, potassa fusa, nitrate of silver, chloride of zinc, or arsenic, will answer our purpose wherever there is sufficient exposure of the pulp to allow of their efficient application. I have used each with success, and with failure.

If the caustic employed be fluid, a small quantity may be placed in contact with the pulp on a bit of cotton, and retained by a plug of wax. If a solid be used, it will be sufficient to place a small particle in the cavity, and stop it in by a temporary plug. The pain, on the first contact of the caustic, is mostly increased, or, at all events, not diminished; but, if the destructive agent can be and is well applied, the pain ceases within from a quarter to half an hour.

The escharotic will act quickly or slowly, in proportion to the amount of surface to which it is applied. If the painful dental pulp be exposed only over a very small part of its surface, the escharotic will take some time in destroying the whole organ, but, if the surface exposed to the destructive agent be large, then the effect will be produced quickly. It is therefore desirable, before applying remedies of this class, to remove from the tooth all the softened dentine, and thus leave the pulp exposed to the action of the caustic.

Seven years since I used rather extensively the chloride of zinc\* for destroying diseased dental pulps, and, from the experience I then gained, I am led to consider it to be as good as any, if not the best, escharotic for that purpose. It may be applied alone, or diluted with plaster of Paris, or combined with morphia, and placed upon the end of a temporary plug. The morphia is supposed to diminish the pain induced by the zinc.

The American dentists have for some time past been using arsenic to effect the same end, and, as they report, with great success. The arsenic is to be placed in contact with the pulp, and to be retained by a temporary plug. In the course of half an hour the pulp is destroyed, and is to be drawn out, and the cavity is to be immediately plugged with gold. In my hands the arsenic has oftentimes failed to produce the desired effect; and, had it been ever so successful, I should still have avoided its frequent use, because a very minute quantity, accidentally swallowed, may produce serious gastric disease.

I think arsenic should be struck off our list of dental remedies,

\* DRUITT'S *Surgeon's Vade-mecum*. Second Edition Published 1841.

seeing that we have other escharotics that are just as effective in destroying the pulp, and which, if swallowed in the minute quantities we use, can work no evil.

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#### HEREDITARY CHARACTER OF THE TEETH.

It is a well-attested fact, that the properties of the parent are to a considerable extent transmitted to the offspring. In no part of the body is this hereditary character more frequently displayed than in the teeth, and especially as regards the external form. If the teeth of the parents be strong, and well formed, we may expect to find similar teeth in the child—unless, indeed, the child be unhealthy. Peculiarities in color, and in position, are often transmitted. The predisposition to early decay often passes from the parent to the child. It does not, however, follow that the hereditary peculiarity in dental formation will in all cases appear; on the contrary, we sometimes see cases in which the reverse has manifestly occurred. Again, a peculiarity may not reappear in the first or even the second generation, but show itself in the third remove from the original parent. These facts are worth bearing in mind, as they often influence the treatment of the abnormal conditions of the teeth. Not that the fact of a malady having occurred in the parent of a patient will of itself indicate a peculiar treatment; but you will probably learn how a remedy was, or was not, effected by the treatment adopted in this previous instance. Such knowledge you will find especially useful when similar cases have occurred in the children of one family.

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#### STAINED TEETH.

It has been observed, in persons who have died from suffocation, that the teeth are in some cases stained red. This state, before the structure of the teeth was understood, was considered to be a proof of their vascularity. It was supposed that the blood imparting the color was contained in vessels which, in these cases, were gorged by the mode of death. This, I need not tell you, is an incorrect hypothesis: vessels, when they do exist in the substance of the tooth, are never present in such number as to give a red color to the dental tissues. We shall find the more correct explanation by considering the state of the blood in asphyxia. The coloring matter of normal blood resides entirely in the globules. The liquor sanguinis is perfectly colorless. But under certain circumstances the colored globules decompose, or are dissolved in the liquor sanguinis, which then becomes a deep red. The tubuli of the teeth, though too small to admit the red globules of the blood, freely admit the liquor sanguinis; and if this be colored red, the tooth itself will necessarily take the same hue.

In persons suffering from jaundice, the teeth become tinged. In some few instances they take a deep yellow, almost equalling in intensity the color of the skin, but, in the majority of cases, they assume only a faint tinge of yellow.

## AN INSTANCE OF DISEASE OF THE ANTRUM, PRODUCED BY A FALL.

BY J. L. LEVISON, ESQ., SURGEON DENTIST.

Some time since, a young woman of this place, about twenty-two years old, applied for my advice, she having a large swelling on the right cheek, the size of a turkey's egg, the lower or broadest part of the tumor being in a line with the upper lip; the swelling extending so high as to effect the eye and the eyelid. The former was protruded, and the latter almost paralyzed, so that besides the deformity, the sight of the right eye was seriously affected, and the secretion of tears a source of irritation to the cheek. The tumor was very hard; the surface of the skin red, inflamed, shining, and very painful to the touch. Considering that disease was connected with the pituitary membrane which lines the antrum, I carefully examined the mouth, and observed that the second molar tooth on the affected side was carious, and the gum dark and livid, and so soft, that it appeared to have been deprived of all vitality; and at the same time the foetor was very offensive. In fact, the gum presented a similar appearance as when there is an effort to throw off a piece of dead bone. In the present case there was a well defined line of demarcation between the affected portion (the cause of the local irritation) and the healthy jaw, for the shape of the diseased gum corresponded to a piece of bone I could move with the slightest pressure. There had not been any teeth extracted on the diseased side of the face, and it occurred to me that the affection of the antrum had been induced by a blow on the face, or from a fall. That, in either case, a large portion of the alveolar process had been fractured, and the molar tooth injured at the same time, by having its periosteum denuded, or so injured that the inflammatory action was set up, and the tooth ultimately destroyed. Having questioned my patient, her answers proved the correctness of my diagnosis. She told me that about ten years since she had fallen down stairs on her face, but that she was not aware that she injured herself at the time, having been stunned. She distinctly recollected that soon after the accident, the swelling on her face commenced with some uneasiness in her mouth; that at first the tumor was very small, and when it had attained the size of a pigeon's egg, she had applied for advice, and was given something to rub it externally, but without any advantage; and that it had since gone on increasing; that she did not then heed it much, although it was always more or less painful, but that she never suffered any alarm until there seemed every probability she should lose her sight. I mention these particulars, because few persons of her class give any history of their cases. It can only be obtained by a species of cross-examination. I removed the carious molar tooth, with the portion of the dead alveolar process, when a considerable quantity of thick, curdy mat-

ter came away, some portions being in different sized lumps. A direct communication was kept up between the antrum and the mouth by means of a conical-shaped tube, and the discharge continued, night and day, for some time. For three weeks I injected the antrum, every alternate day, with a lotion of about twenty drops of the chloride of zinc to an ounce of distilled water. About the end of a month the deformity had entirely disappeared, and the affected side had acquired its normal proportions; the eye had recovered its natural position and brightness, and the mouth itself had become perfectly healthy. This case forms additional evidence to the opinions I have advanced in previous papers, that it is impossible for a surgeon-dentist to do his duty, if he have not a knowledge of general anatomy and pathology, and also a special information of the mouth, its diseases and treatment.—*London Lancet*.

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### HULL'S IMPROVEMENT TO THE BLOW-PIPE.

Dr. Hull, of Mattewan, has sent us a fixture which consists of a small cylindric barrel about half an inch in diameter and a little more in length. From the centre of one end projects a small tube, into which the common mouth blow-pipe is to be inserted, and from the circumference of the cylinder issues another pipe in all respects like the bent extremity of the common blow-pipe. This little cylinder or barrel is intended to collect the moisture which so often passes through the blow-pipe and sputters upon the work while soldering.—*N. Y. Dental Recorder*.

This style of blow-pipes we have sold for years.—*News Letter*.

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### CASES IN WHICH ETHER WAS EMPLOYED.

At Dr. Morton's office in Boston, during three weeks ending June 8th, 1849, the Letheon was administered to thirty-nine patients, for whom one hundred and twenty-nine teeth were extracted, five nerves destroyed, and one tooth excavated. The quantity of ether used was forty-three ounces. The time of insensibility varied from half a minute to five minutes, and the time of recovery from one to two minutes.

The Ether (letheon) was given to persons of various ages from ten to fifty-one years, and to those of almost every variety of temperament, causing the pulse to vary, between the commencement of the inhalation and the end, in some cases, as much as thirty-five beats; and yet there is no case reported in which any unpleasant or dangerous symptoms were manifested beyond restlessness, and, in one or two cases, slight spasms.

The above is communicated to the Boston Medical and Surgical Journal, and would seem to indicate that the letheon is still used to considerable extent in Boston, for extraction of teeth; while in this city, and in most other places, so far as we have been able to learn, it has been generally abandoned.

From this report we are led to infer that Dr. Morton's practice has not suffered so much, by his connection with letheon, as is represented in his memorial to congress, or if so, is rapidly returning again. The Dr. is undoubtedly entitled to credit for his perseverance in successfully carrying into practice the discovery of Dr. Wells, and we sincerely hope that he may live to reap his just reward.—*N. Y. Dental Recorder*.

### STEAM INTO THE PRACTICE OF DENTISTRY.

A friend called in our office a few days since, and gave us the following:—On his way up the river, business took him across the river from Louisville, where he met an itinerating steam dentist. He was prepared with a small furnace and boiler. To the latter a flexible pipe was attached, which when a patient presented himself with an aching tooth, or wished a nerve removed, was introduced into the cavity of the tooth: some *roots* or *herbs*, in flavor like garlic, were put into the boiler with water or some fluid. The furnace was then heated up—puff, puff, goes the steam, and with a hiss out jumps the nerve—all done without pain—rights sold for the use of the invention on moderate terms, &c. &c. Our informant happened to have an aching tooth, which he put under treatment; but unfortunately, for the steam doctor, the nerve had long since departed, and the garlic vapor could not restore it nor relieve the pain. Somewhat mortified, and feeling rather foolish, he *sloped*.—*Dental Register of the West*.

*Amsterdam, May 3, 1849.*

MR. EDITOR.—I take this opportunity through your *Recorder*, to caution others against the too careless manner of burning alcohol for soldering and other purposes. Although I was aware of the danger incurred by not having the wick large enough to completely fill the tube of the lamp, yet, in using it several years, I had become less cautious, and the wick not occupying the whole of the orifice, the fire communicated with the inside of the lamp, and caused an explosion, forcibly expelling the cork from the top of the lamp, and forcing the wick out of the tube, together with about half a pint of alcohol on the floor, some three or four feet from the bench on which it stood. The tube being directed a little from me, I escaped by having a small quantity of the burning alcohol thrown in my face, and burning me in some half dozen places rather severely, together with my hair and eyebrows, which were pretty well singed. Had the tube pointed directly towards me, so that I had received the contents of the lamp in my face, I should have been severely injured, and should have considered myself fortunate in escaping without the loss of either of my eyes.

The danger lies in not having the wick large enough to fill the tube.—*Dental Recorder*.

J. C. D.



# BALTIMORE COLLEGE OF DENTAL SURGERY.

SESSION 1849-50.

The Mechanical and Dissecting rooms of this Institution will be opened for teaching the principles of Operative and Mechanical Dentistry and Practical Anatomy, on the last Monday of October. The regular course of Lectures commences this session, on the last Monday of November, and continues four months.

## FACULTY.

ELEAZAR PARMLY, M. D., Provost.

CHAPIN A. HARRIS, A. M., M. D., Professor of Principles and Practice of Dental Surgery.

THOS. E. BOND, JR., A. M., M. D., Professor of Special Pathology and Therapeutics.

W. R. HANDY, M. D., Professor of Anatomy and Physiology.

CYRENIUS O. CONE, M. D., D. D. S., Professor of Operative and Mechanical Dentistry.

PHILIP H. AUSTEN, A. M., M. D., Lecturer on Dental Chemistry, and Demonstrator of Mechanical Dentistry.

The Faculty announce their tenth annual session with increased confidence and pleasure, both from the prosperity and success attending the past, as well as from the cheering prospects of the present and future. It will be perceived that the Chairs are now all filled, and the Faculty are therefore prepared to offer to the students of the coming course of Lectures, an increased amount of *practical instruction*. *Practical instruction* forms the great and prominent feature of the College, and to this fact we wish most especially to call the attention of the *Dental Profession*, *Students of Dentistry*, *Physicians* and the community at large. For this purpose the most ample provision is made—first, in having large and commodious rooms to work in, with all the necessary appliances; and, secondly, in having either the Professor or Demonstrator of Mechanical Dentistry always at hand to show how the work should be done. But this is not all. The College also contains an *Infirmary*, which constitutes, perhaps, its most attractive practical feature; for here it is that patients assemble from day to day, throughout the course, to have the various operations upon the teeth performed—and these operations are required to be performed by all the students, which is readily done by dividing the whole class into smaller classes, and allowing each to practice in rotation—and this kind of systematic, practical discipline is kept up daily through the whole session, under the immediate supervision of the professors of the Operative Department and the Theory and Practice of Dentistry. Another practical feature is the Dissecting room, which is superintended by the Professor of Anatomy, and where the student is earnestly advised to resort, that he may obtain that practical acquaintance with all the organs of the body, as well as those most immediately in connection with the profession of his choice.

The *Museum* contains thousands of teeth of every pathological variety, with several beautiful Anatomical preparations, imported from Paris, together with others recently ordered, all of which furnish the most abundant means for demonstrations.

Tickets for the course, \$110; Dissecting Ticket, (optional,) \$10; Matriculation, \$5; Diploma Fee, \$30.

W. R. HANDY, *Dean*.

## HOMŒOPATHIC MEDICAL COLLEGE OF PENNSYLVANIA.

The course of Lectures in this College will commence at the College building, in Philadelphia, on the first Monday in October, 1849, and will continue until the 1st of March following.

### FACULTY OF MEDICINE.

CALEB MATTHEWS, M. D., Prof. of Mat. Med. and Therapeutics.

WM. S. HELMUTH, M. D., Prof. of Hom. Institutes and Practice of Medicine.

SAMUEL FREEDLEY, M. D., Prof. of Botany and Med. Jurisprudence.

CHARLES NEIDHARD, M. D., Prof. of Clinical Medicine.

WALTER WILLIAMSON, M. D., Prof. of Obstetrics and the Diseases of Women and Children.

ALVAN EDMOND SMALL, M. D., Prof. of Physiology and Pathology.

MATTHEW SEMPLE, M. D., Prof. of Chemistry and Toxicology.

FRANCIS SIMS, M. D., Prof. of Surgery.

WM. A. GARDINER, M. D., Prof. of Anatomy.

# THE DENTAL NEWS LETTER.

Vol. III.

OCTOBER, 1849.

No. 1.

For the Dental News Letter.

## TREATMENT OF DENTAL PULP PREPARATORY TO PLUGGING. BY DR. J. D. WHITE, Dentist.

MR. EDITOR,—There is no subject connected with the duties of the dental practitioner so important as the above, and none which the writer would approach with more deference to the opinions of others. That the subject is intricate all will agree, and that nothing has been settled upon, to direct the young practitioner in a way by which he may generally arrive at very satisfactory results, is also true. It is justly remarked by Mr. Tomes, of London, "that it is too much the practice, at the present day, to immediately remove an aching tooth. It would well repay any one who has time and opportunity, to devote their energies to the investigation of this subject," and that "there are many teeth extracted which, with care, might be saved and rendered serviceable for years." The same remarks will apply, to a great extent, with reference to the subject in this country. Professor Harris, of Baltimore, remarks, in his work on dental surgery, published some time ago, that "Indeed, I regard the propriety of plugging a bicuspid or molar, after the nerve has been exposed, as so extremely doubtful, that I think I hazard nothing in asserting, that however correct the preparatory treatment may have been, it will not be successful in more than about one case out of four." And more recently he remarks, in an article on the treatment of the pulp, in the American Journal and Library of Dental Science, July 1st, 1849, that "even now, although he has performed the operation successfully in numerous instances, he feels considerable hesitancy with regard to the propriety of expressing his views upon the subject, nor would he at this time, had he not been frequently requested to do so." This eminent author further remarks, "although he is disposed to think favorably of it at present, its ultimate value, to some extent, remains to be determined;" but "Hereafter, he may furnish the readers of the Journal with the result of his observations and experience upon the subject." This is the right spirit. Combined observation is the only sure way by which we can hope to arrive at correct conclusions in any difficult subject. If such had been the practice of those illustrious names who have gone from among us, and a correct record handed down to the rising generation of the profession, incalculable good might have been done for some of the ills that flesh is heir to, and an important work have been

done, and fixed upon established principles, which, as yet, has scarcely been commenced. With regard to the propriety of attempting to treat the dental pulp, as a general rule, when exposed by decay, there can be no doubt. Subject, however, to many considerations, the age of the patient, as to whether the roots of the teeth are fully formed, as well as the general health and tone of the teeth, gums, and the system generally. But experience can only be rendered advantageous, in this respect, by close observation, founded upon an extensive knowledge of physiological and pathological science. However uncertain the treatment may be, it is better to make the trial, for even if the tooth is lost, it is no more than would happen at any rate, as the tooth is useless with an exposed pulp, and better learn by losing hundreds, than to abandon for ever the attempt to preserve any. The writer has been making extensive experiments in the treatment of the exposed pulp, for twelve years, in every conceivable way, and has finally settled upon a general and very successful plan of practice, and which plan he gave in full in a thesis paper on the treatment of the dental pulp preparatory to plugging, for the degree of Doctor of Medicine in the Jefferson Medical College, in 1844, and which will form the basis of the present series of papers upon the above subject.

To better understand the subject, a few remarks, with reference to the division of toothache into different stages, and the diagnosis only, will not be out of place, as it is presumed that students become, at the present day, acquainted with the minute anatomy, structure, and physiology of the teeth, in the earliest part of their studies; those that have not, I would refer to *Tomes, Harris, Jourdain, and others*. There is no case of toothache that cannot be cured, and the tooth saved, as a general rule, if there be enough of the dentine or body and root of the tooth remaining to receive a plug. Toothache may be divided into, and treated under three heads, viz: *True, False, and Sympathetic*, but may also be considered as only different stages of the same disease; because it is evident, that however remote or obscure the pain and pathological change may be, if excited by a tooth, it is none the less toothache in some of its forms or stages.

1st. *True toothache* is acute inflammation of the dental pulp or nerve of the tooth only, and subject to the same changes as any other vascular tissue of the body, while running through the different stages of inflammatory action, and the intensity and character of the pain depending somewhat upon, and marking the different pathological changes the pulp is undergoing at the time. *Its causes*,—may be *constitutional, remote, approximate or local*. Constitutional, such as high sensibility and irritability of the nervous and vascular system. Remote, when other diseases are operating upon the system; such as tuberculous diseases of the nervous system, genital organs, attacks of cold, &c.; in short, any disease which operates to promote irritability and a morbid

condition of the system, will favor an attack of toothache of any kind. Approximate and local: such as one diseased tooth operating upon another, by *metastosis*, sympathy or close proximity; decay of the dentine sufficiently to expose the pulp to air, and the irritating acids of the mouth, sudden and extreme changes of temperature, erosion, &c.; dead dentine without much softening, acting as a foreign substance, as in cases of blackness of the tooth, substance commonly called black decay; on the contact of any foreign substance or plugging material, while introducing a plug; accumulation of serum, blood or pus beneath a metallic plug, or the decay of the tooth itself; when inflammation attacks the pulp before the decay is removed sufficiently to allow of the escape of the accumulating fluids.

2d. *False toothache* is an inflammation of the alveolar dental membrane and gums, and is commonly communicated from *within* the tooth to *without*, by continued inflammation and ulceration of the pulp through the foramin, at the end of the root; hence it almost invariably commences at the apex of the fang. This membrane never continues acutely inflamed for any length of time, without destroying the vitality of the pulp, because the swelling of the coats of the blood vessels around the foramin, at the end of the root, cuts off a supply of blood to it, and the high grade of inflammation which exists in the pulp before it extends to any height externally, will cause it to slough. This is the point at which true alveolar abscess commences, and is never established without a loss of the dental pulp. *It causes salivary calculi*, (but, as observed above, generally disease of the pulp,) which will often excite extensive inflammation of the gum and periosteal membranes, and sometimes to such an extent as to even inflame the pulp and cause it to slough; a blow with any hard substance will often produce the same effect. Calomel is also a common cause of periosteal inflammation, especially when pushed to ptyalism, and acids of various kinds, administered during illness, and the mouth not washed carefully. But the most marked cases of the kind, and the most painful, but without the extreme sponginess which exists in severe ptyalism, that we have ever seen, has been during the development and eruption of the wisdom teeth, in patients of extreme irritability of the nervous and vascular system. And what is most curious, however large, and however sensitive the teeth may become in ptyalism or teething, as soon as the irritating cause is removed the teeth return again to their natural and healthy condition, as a general rule, without a loss of the pulp.

3d. *Sympathetic toothache*.—This character of toothache may be regarded as only existing in sound teeth, or in teeth in which pain is experienced, but are not themselves the exciting cause of the pain, but excited by some irritating cause along the course of the nerves of the same side of the face; not, as is supposed

by some, caused by a diseased tooth of the same class on the opposite side. Opposite jaws may be painful from the same cause, but not opposite sides of the face, except it be from disease of the roots, or both of the nerves of the fifth pair—such as in rheumatism or irritability of the nerves of the head and face generally.

*Its causes.*—Diseased neighboring teeth; diseases of any character involving the fifth pair of nerves; general irritation of the gums from *salivary calculi*; partially necrosed roots; uterine pregnancy; development and eruption of the teeth; exostosis of the roots and alveolar processes; ossification of pulp, &c. &c.

*Diagnosis of true toothache.*—Actual contact with your instrument, after removing the decay of the tooth, and ocular demonstration, is almost the only positive signs of toothache; still the following symptoms may sometimes lead to correct conclusions, viz: pain upon taking substances into the mouth above or below the common temperature of the blood. Yet, high sensibility of the tooth, when only slightly decayed, or where they are wholly sound, may give rise to great pain upon taking cold or sweet substances into the mouth, and sometimes cold is the only temporary remedy for inflamed pulp; therefore, a toothache which is relieved by cold water, may be relied upon as arising from inflammation of an exposed pulp; on the contrary, warm, when it produces any impression at all, it is to increase the pain, and that is frequently the first sign we have of the inflamed pulp, after a tooth has been plugged with slight exposure of the nerve. Tenderness to the tooth *inside* of the *cavity of decay*, and more or less prolonged pain after the instrument is removed; while pain excited by sensibility of the bone, only lasts while the instrument is in actual contact with it. Again, a little experience will render the operator capable of judging whether the pain, excited by the contact of his instrument, is really from an exposed pulp or sensitive bone, by the peculiar thrill which it gives the patient.

These symptoms all become much exalted when acute inflammation attacks the pulp, together with intense pain accompanying. Intermitting pain is also a marked sign of true toothache, especially in the after part of the day, and forepart of the night,—the febrile exacerbation—the determination of blood to the head and face, which gives the flushed cheek more or less to all in the evening, accounts for more pain being experienced at this time than any other in the twenty-four hours. Few have toothache in the morning; hence, the promises which are made in the night, that the tooth shall be extracted in the morning, are, on account of the absence of pain at that time, so frequently broken by the sufferer. When these symptoms are present, and there is no seeming elongation of the tooth from the socket, and no undue sensation by sharply striking against the cutting edge or grinding surface of the tooth, with a hard instrument, it may be generally relied on as diagnostic of true toothache.

For the Dental News Letter.

MESSRS. JONES, WHITE &amp; Co.

In your "Letter" of July last, I noticed a reply made by Dr. Fleming, of Harrisburg, Pa., to my communication, which appeared in the April number, preceding, in relation to the existence or production of SECONDARY DECIDUOUS teeth, &c. In this affair the Dr. seems to assume rather a peculiar attitude. He first propounds to the public a kind of *tooth enigma*, viz: "can a deciduous tooth be reproduced by the restorative powers of nature, when its fang and pulp have been entirely removed?" This question he asks, as though he did not know at the time what to think of it. After receiving an answer, that he does not seem to relish, he sets about and answers himself in the affirmative, and says it can be supported by "sound physiological principles." Now, if Dr. Fleming, be in the possession of so much physiological knowledge relative to this matter, why is it that he never troubled the public about it. The simple declaration of an opinion, unattended by any evidence upon which to predicate that opinion, surely can do but little towards settling a controverted point. Indeed, I think there are some considerable barriers to be removed before the Dr. establishes his secondary deciduous production upon such principles. My object, in my first communication, in speaking of the disposition made of the original germs of the teeth, in the formation of the first and second sets, was merely to indicate the inutility of looking to this source for the rudiment of such a production as the one in question.

To the brief manner in which I expressed the existing relationship between the rudiments of the first and second sets of teeth, the Dr. has objected. And it is true, that the permanent sac is formed by a folding, or an inflection of the same mucous membrane that forms the temporary one; yet there is an intimate connexion and relation existing between the two rudiments from their earliest formation, up to the separation of the gubernacular cord, in due time by natural process; and whether the permanent pulp derives any support from the temporary pulp or tooth by this connexion, there is one thing generally agreed upon, that the health, growth and proper development of the permanent teeth depend upon the preservation of this connecting cord, until the proper period arrives for its separation. None of the ten anterior permanent teeth are produced without a corresponding temporary one. If a production of the kind, first instanced by Dr. F., ever had an existence, it must have been formed by a process differing materially from that forming both the temporary teeth proper, and the permanent ones. In both the latter instances, there is an even, unbroken, uninterrupted folding of the mucous membrane forming the sacs of both classes. And how is this condition obtained of the mucous membrane in an alveolus from which a tooth has been extracted or knocked out. In this event the



membrane encircling the socket must be lacerated and injured, requiring several days to regain its health and union. And after this is accomplished, that it should possess such wonderful restorative powers, as to form a new secondary sac, is among the greatest improbabilities; but admitting the sac, pulp and tooth formed, we might ask again, how is it to be articulated? If placed in the same alveolus occupied by the former tooth, how were the gums and processes preserved from absorption, which is the unfailing result from extraction? If this absorption did occur, and the new production articulated in its own socket, how was this socket obtained; and the internal vascularity of the tooth secured by its connexion with the vascular system? In fact, all the circumstances connected with a production of the kind in question, tend to constitute it a phenomenon of no small magnitude in the renovating powers of nature. Not occurring within the ordinary process of physical laws, nor to be accounted for "upon sound physiological principles." Dr. Fleming thinks differently, and I am sure he is welcome to try his hand; but, in doing so, I fear the Dr. will imitate the new minister who made his first appearance in the pulpit, rising and drying the perspiration off his face two or three times, and not finding a word to commence with, resumed his seat, merely saying, "ladies and gentlemen, if any of you think it an easy matter to preach, you may get up and try."

Diminutive as the second period of my first article was, Dr. F. appears not to have understood, or if he did, has misrepresented it. He says, it is "passing strange" that I should have left the impression upon my patient's mind, that the tooth I extracted was the **SECOND**, and not the **FIRST**. I cannot conceive from what source the Dr. procured such information, for I plainly stated, that before extracting the tooth, I gave it as my opinion, that it was a **TEMPORARY** one, having never been shed.

After a period of two years, (in order to be brief,) another tooth made its appearance and filled the vacancy; that this latter production was believed in the neighborhood to be a **THIRD**; having had the **SECOND** extracted for irregularity. This latter clause was rumor also, and not an expression of my opinion; this was shown previously to be different. As the tooth extracted was believed by myself to be **DECIDUOUS**, as a matter of course, I was compelled to say, the latter production was only the **SECOND** permanent cuspidatus. I mentioned this case in my first article, because of its being somewhat remarkable in cutting a tooth of the second dentition at the age of seventeen, but more particularly to indicate the prevalence of erroneous impressions; this being only one among the multitude of cases. In fact, so frequently do we find impressions of this kind existing, that it is almost of daily observation. Then, reasoning from analogy, may there not also exist some misconception as to the reproduction of the deciduous tooth first related by Dr. Fleming, so that there may yet exist a



little more analogy between the two cases than he at first supposed.

There is one fact I feel fully assured of, that it is much easier to account for the manner in which errors exist, in relation to productions of the kind, than their formation "upon sound physiological principles." That there are many cases of a THIRD dentition in advanced life, no one denies, and that these cases are "FREAKS of nature" no one will dispute, not occurring within the ordinary process of physical laws.

The remark the Dr. was pleased to make, in relation to "diminutive heads," bears an indication of his being a little nettled; as no remark of mine was intended to sully his feelings, I hope he may throw off a little steam, reduce his pulse to seventy-eight, and endeavor to feel better.

Respectfully yours,

THOS. J. WARD.

Wetumpka, Ala. Sept. 4th, 1849.

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For the Dental News Letter.

# REMARKS UPON THE REMARKS OF DR. J. B. MITCHELL, ON THE DESTRUCTION OF THE NERVES OF TEETH, AND THEIR TREATMENT.

Members of the profession must know the evil effects of extraneous or lifeless bodies remaining in living parts. To examine the progress of salivary calculi or tartar, which deposit is so gradual, that it takes years before it accumulates to any extent; we plainly see from its first accumulation, the commencement of inflammation of the gum around the necks of the teeth where it has deposited itself; and in this process of nature, we see the edges of the gum around the necks of the teeth highly inflamed, bordering on suppuration, and disengaging itself from the necks of the teeth, until the alveolar processes are exposed; when they absorb, leaving the teeth with no support, and the consequent loss of the teeth. Thus, we see that a lifeless substance produces the most injurious consequences, if allowed to remain in living parts. Now, in calling our attention to the practice of destroying the dental pulp, Dr. J. B. Mitchell asserts, that destroying the nerves of teeth deprives them of their whole vitality, according to a quotation by him from Sir Benjamin Brodie, which he says, must set this at rest. "The inflammation on which toothache depends," says that gentleman, in one of his clinical lectures, "terminates, as it always does, in the death of the pulp in the tooth; then the whole tooth dies, and is now like a portion of dead bone, or any foreign substance stuck in the jaw." (Medical Gazette, Vol. XV. page 347.) Dr. J. B. Mitchell, says, "operations, therefore, for the artificial destruction of the

pulp of a carious tooth, have no higher object in view, than the hurrying of the disease through its most painful stage, in order the sooner to induce the more advanced, and far more injurious one. They are, in fact, operations for the more speedy production of stumps; their sole aim is to remove pain at the expense of a greater evil; as such, it is evident, that they have nothing in common with the operations of general surgery, which have for their object ultimate benefit, though purchased by immediate pain, and it is but natural to suppose that they owe their origin to the urgency of the patient, rather than the suggestions of science." (Dental Recorder, Vol. III. page 60.) I suppose Dr. Mitchell and Sir Benjamin Brodie thought they had discovered, in searching for knowledge, that destroying the pulp of a tooth, kills the whole vitality of the tooth itself, and therefore certain in comparison to cause the effects I have mentioned above of salivary calculi. I would suppose Mitchell and Brodie could have spoken upon a subject more nearly connected with their profession, that would have done them some credit, instead of speaking upon a subject that they knew just enough about to make them look ridiculous in the eye of the dental profession. Every young female that wears artificial curls, knows that dead hair will not do to make them out of; every worker of ivory knows the difference between live and dead bone; and every hatter will tell you of the life of furs; and every dental surgeon will inform Dr. Mitchell and Sir Benjamin Brodie, of the life of teeth, independent of their pulp. If Dr. Mitchell, or any one wishes to satisfy themselves as to the fact of it, let them cut off an anterior incisor, no matter how much decayed, so as there is no inflammation of the pulp, at the extremity of the fang, extirpate or cauterize it to the end of the fang, dry the canal and fill it up perfectly with gold, and it will feel so much like it did before, that the patient will not be able to tell the difference. I know that artificial teeth can be worn on such roots for years, and no inconvenience arise from them. Now, if a fang was like a splinter in the jaw, the effect would be as Sir Benjamin Brodie asserts. The effect inferred to arise by Dr. Mitchell, from the destruction of the pulp, is, in some cases, the spread of inflammation, caused by the atmospheric air at the end of the fang, creating chronic disease, which considerably weakens the nervous system, and which would be entirely obviated by skilful treatment in filling, and if the inflammation does not spread, and the open canal of the tooth gets jammed up with food, causing inflammation, suppuration and its consequences, immediately leaving chronic disease behind, which also can be obviated by skilful filling. The actual truth is, that no fang can be as lifeless as tartar, while the least particle of gum is growing to it.

C. F. GOODWIN.

For the Dental News Letter.

PARIS, *September 20, 1849.*

MESSRS. JONES, WHITE & Co.

GENTS,—In compliance with a promise given to my professional brethren, I should like to avail myself of the medium of your News Letter, to give my present views in regard to the preparation of tin and cadmium, an account of which I published in the London Lancet and the London Medical Gazette.

It appears to have been inferred from my remarks in these Journals, that I am an advocate of the practice of filling teeth with amalgams. This is an honor to which I have not the slightest claim whatever, and I must therefore leave it entirely to the enjoyment of those who are justly entitled to it. The fact is well known to my friends on this side of the Atlantic, as well as in America, that I have always been strongly opposed to the use of any other material for filling teeth than gold, and in my own practice I have never made use of any other. My predominant opinion has always been decidedly in favor of gold, notwithstanding I have, in common with others, experimented with a view, on my part, of testing the merits of substances designed to be used in a plastic state. From my experiments with the preparation alluded to, I discovered that it had qualities which the other amalgams did not possess. It preserves its color better than the other mercurial preparations I am acquainted with. It also has the advantage of becoming a tough ductile substance, susceptible of being cut or burnished like a piece of tin. In addition, the cadmium seems to completely absorb the mercury in the process of crystalization. From these circumstances, it was thought to possess important advantages over any of the substances hitherto employed.

There is, in my opinion, a very great objection to all the combined metals, arising from the fact that they are all promoters of galvanic action. This objection is a very serious one in a substance employed for filling teeth. Upon removing some of this filling, which appeared perfectly tight, and which was unchanged in its color upon the exterior surface, I have found that beneath the metal a deep yellow hue had made its appearance, penetrating for some distance into the bone of the tooth. This phenomenon does not present itself until after the lapse of considerable time, and appears much more striking in some cases than in others. Whether this effect is to be ascribed to galvanic agency yet remains to be determined. Mr. Faraday observes, (see Turner's Chemistry, sixth American edition, page 399,) that an alloy of steel with one-hundredth part of its weight of platina, dissolves with effervescence in diluted sulphuric acid, so weak as scarcely to act on common steel; a fact which he accounts for by ascribing it to the steel being rendered positive by the presence of the platina.

I have watched the effects produced by the application of this preparation, and the result of my observation has been such as I have stated above. I am now engaged in investigating the subject of the different amalgams that have been in use, in reference to their influence upon the general health; and I hope soon to be able to give the opinion of some of the highest medical authorities in Europe, upon a question which has elicited so much discussion, and which, in reality, is one of the greatest importance.

In giving publicity to this preparation, the object was not simply to make known the result of my experiments, but also to invite the attention of the profession to a subject so peculiarly important as that of discovering a material to be used *in those cases in which the circumstances might seem to indicate the expediency of employing a soft filling*, and to take the place of the compositions deemed objectionable, already in use. Experience, the great test in such matters, has furnished a result not so favorable as was anticipated by many members of the profession, who had expressed their decided approbation of this preparation, and who seemed perfectly confident that it was destined to fill a great desideratum which had so long been felt.

Whatever may be the hopes of others in regard to this preparation, *I have never* considered it as a substitute for gold—I have regarded it as a mere expedient, to be resorted to only in *peculiar* cases.

In regard to its influence upon the general health, in the opinion of those whose authority is entitled to weight, it is not injurious in this respect. *I cannot, however, refrain from stating it as my deliberate opinion, that all operations in which amalgams are employed are merely temporary in their nature, and that any tooth that can be filled in a PROPER manner with GOLD, can be effectually and permanently saved only by this means.* This is the opinion which I have always entertained, and I adhere to it at the present moment with undiminished confidence.

Yours respectfully,  
THOS. W. EVANS.

15 Rue de la Paix.

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For the Dental News Letter.

## DUBS' PATENT COMPOUND UNION SCREW FORCEPS.

TO THE EDITORS OF THE DENTAL NEWS LETTER :

*Gentlemen,*—From remarks I have recently seen in the Eastern journals of Dental Surgery, I find that more than one editor is acting under a misapprehension, in regard to my invention of the Compound Union Screw Forceps; and some have gone so far as to intimate, either, that the improvement or invention was of little use, or that it had been invented previously by some other person, or that what I claim as my peculiarity of the invention, added nothing to the principle, and gave no additional value to the instrument. Living thousands of miles distant from the publication

offices of these journals, and having taken but little pains to communicate the particulars of my invention to the profession, living so distant from my home, I do not know that I ought to be surprised, that erroneous, if not malicious views should prevail, especially under the opinion entertained by many Dental Surgeons, that it is unprofessional to obtain a patent for any improvement whatever. A due regard to my fame, and strict justice to the purity of my motives, requires that I should avail myself of your kind offer, "to publish any thing from my pen in the way of a plain statement of facts in substantiation of my claim." This shall be done in as brief a compass as possible.

In 1842 and 1844, my mind was led to the improvement of the instruments I used in Dental Surgery, a number of which I made for myself, being enabled to do so with accuracy and beauty, from knowledge obtained in a branch of the arts in early life. I commenced to improve the forceps, then in use for extracting decayed teeth, or their roots after the decay of the teeth. My book of drawings kept from that time, shows the progress I made from time to time, as I invariably made a drawing of my conception before I put the improvement upon metal. In getting out the material for my instrument, I was in the habit of applying to Mr. S. Odell, a respectable artist and gunsmith of Natchez, now on a visit to the northern cities, who is ready to bear testimony to my labors, designs and improvements from the before mentioned early commencement, up to 1846 and 1847. When I had brought my Compound Screw Forceps to the perfect state in which they now are, my books recording my various dental operations, show from 1846 with what instrument I operated, and contain a history of the work done by the aid of my invention, and various individuals of the utmost respectability, are ready to bear me witness of the superior skill and ease with which the most difficult cases of extraction were performed by the aid of my instrument.

It had been my intention to present my beautiful and now perfect instrument to the dental profession, and wrote a letter to Mr. Wm. Leach, of Baltimore, requesting him to inform Professor Chapin A. Harris, M. D., of the Dental College, and a distinguished author on dentistry, that I had invented such an instrument, and intended to present him with one if he would accept it. I received an answer from Mr. Leach, that Dr. Harris was absent, but that he would convey my wishes to him on his return. Since which I have heard nothing more of the matter.

Shortly after this time, being bitterly assailed by enemies who attempted to make the public in Natchez believe that I had either invented nothing, or stolen my invention from some one else, my friends advised me to secure a patent, and thus ensure to myself and family the honor and profit of my invention. I accordingly sent on my specification, and entered my caveat in the patent office in the early part of 1847, to secure my right,

although I did not receive my letters patent until October, 1848, some sixteen or eighteen months after the date of my caveat. The following precise words taken from my specification, and now in my letters patent, show all that I claim as my invention: "What I claim as my invention, and desire to secure by letters patent, is the combination of the notches\* (B) of the screw (A) with the catch of the click (D), by means of which the screw affords additional power in extracting roots of teeth as *above described*."

Previous, and between the period of entering my caveat and securing my patent, I heard, or read in the advertisements of instrument makers, of a Screw or Root Forceps, and wishing to know if it trenched upon the principles of my instrument, I sent on an order to Mr. J. D. Chevalier, instrument maker, of New York, who sent me two, and letters of the dates of February 20th, 1847, and July 15th, 1847, where he stated his price was for his extra quality Screw Forceps \$3 50 each. The instrument I then obtained, I sent on to the patent office, to show the commissioner that my invention did not in the least trench upon or conflict with that instrument, of which I retained the other, being the same kind as I sent to compare with my invented patent instrument, which is now deposited with my own model in the patent office. Having received little but abuse from many members of the dental profession, it will not be wondered at, that I shall rigidly protect the right which the laws of my country have given me, and prosecute any manufacturer, who makes or has made instruments on the "principle of the ratchet and spring," &c., which I invented, and claim to be its originator.

Very respectfully, &c.,

C. H. DUBS.

Natchez, August 16th, 1849.

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For the Dental News Letter.

MESSRS. EDITORS,—As you propose making public, through your truly valuable periodical, any cases of irregularity of the teeth, &c., that may come under the notice of your correspondents, I shall now endeavor to give you an imperfect sketch of a case I had an opportunity, a few days since, of examining, and as I have never seen a case precisely similar, though it may not be uncommon, yet I confess it has, to me at least, the charm of novelty, as being a most singular instance of malformation. It is not, strictly speaking, an imperfect formation, but a somewhat remarkable elipsis, (if I may use the expression,) by which nature seems to have left out, by some extraordinary process not easily understood, a portion of the elements so necessary to the perfection of the anatomical machinery of man.

\* As no cut accompanied the communication, we were compelled to publish without it; however, it will be plain to all those who have paid any attention to the matter.—ED.



The singularity of this case consists in an entire want of the *Superior lateral Incisores*, and the *first Bicuspid*s in the *lower jaw*; the *cuspidati* appearing in place of the *superior lateral incisores*. Or when they should have been more pointed, slightly inclined backwards, and considerably longer. In the lower jaw the formation is, if possible, still more singular, there being, as I have just mentioned, a total want of the *first bicuspid*s, the second of which presents the appearance of a large *molar*, there being no perceptible difference between it and the first and second molar, with the exception of the outer grinding surface being somewhat raised, and of that peculiar formation which distinctly marks it as a *bicuspidati*.

The individual from whom this sketch is taken, is past the age of forty-five, of robust health, but as yet the *dens sapientia* have not appeared, nor is there the slightest indication of there being an *alveolar* containing a gum for their production; and from a critical examination of all external appearances, I think I may safely assert, that no such gums exist for the production of the *dens sapientia*.

I was most positively assured by the subject of this notice, when questioned, "that he never had a tooth extracted in his life." Another singularity attending this case, is an uncommon *depression* of the *palatal arch*, a thickening of the *alveolar processes* upon the inner side, to such an extent, which, owing to their projection, causes the lining membrane, together with the gums upon the inner side, to approach very nearly the grinding surface of the tooth. I herewith enclose you a hasty drawing of the mouth, taken from a cast which is now before me. You will perceive that this peculiarity in the formation, gives to the mouth an unpleasant and somewhat terrific expression. Owing to the length of the *cuspidati* it is with exceeding difficulty that the lips can be made to approximate, the superior dental arch being much larger than that of the lower jaw, which, with the projection of the central and lateral *incisores*, and *cuspidati* of the latter inwardly, adds nothing to the general appearance of the physiog; but the *tout ensemble* is, I assure you, any thing but a pleasing one to the eye of the stranger, raising in his mind strangely blended ideas of the monkey and canine, with the genus *homo*, combined with, perchance, a feeling a little akin to disgust, so strongly colored with the ludicrous, thus makes it somewhat difficult to prevent giving a risible expression to the "workings within."

I find, Mr. Editor, that I have run this little sketch entirely beyond the limits originally assigned it, and as it is written in very great haste, I hope your readers will forgive me my *tour d'expression*.

I am, dear sir, very respectfully yours,

Q. C. GRASY.



For the Dental News Letter.

## FILLING TEETH.

Having seen several articles in the News Letter on the filling of teeth, describing the operation differently from what I perform it, I take the liberty of detailing the method which I have practiced for six years past.

The cavity I prefer to have of a cylindrical shape, the *depth* a little *greater* than the *diameter*. Of course, it is impossible, in most instances, to obtain this shape, but that is the standard to which I approximate as nearly as practicable. The *opening* to the cavity should be as large as it is within; and I prefer that it should be larger, rather than smaller. When the diameter of the orifice is *less* than the cavity within, it is extremely difficult to fill it *perfectly solid*; there will almost always be a slight space between the gold and the walls of the cavity, and should this be the case, the tooth will eventually become discolored, and decay. On the other hand, even if the opening is considerably larger than the interior, a plug may be inserted in the manner I am about to describe, and if well done, cannot be otherwise than perfectly *solid*, and perfectly *full*. The slight *roughness* of the tooth will prevent its coming out.

When the cavity is properly prepared to receive the gold, roll up a leaf of foil, (or fold it flat,) and cut it into pieces of different lengths and sizes; then take a piece which is somewhat *longer* than the depth of the cavity, and place it therein, having one end on the bottom, and the other project somewhat beyond its orifice; then press it against the *sides* of the cavity, and make it as *solid* as possible. Proceed in this way until the cavity is *full*, so that no more foil can be introduced; then, with a plugger considerably less in diameter than the cavity, press the projecting gold down against that within the cavity, as compactly as possible; then with a file or other instrument, remove all the gold beyond the edge of the cavity; then polish and burnish the surface of the filling as highly as practicable. If the *depth* of the cavity is about *double* its *diameter*, I make *two* layers of gold, in the same manner as above described. A tooth filled in this manner will not lose its filling piecemeal; if any comes out, it all will, at once, and the patient is immediately warned to consult his dentist. But it is rarely the case that this will happen. One very great advantage of this method is, that the operator may be sure of having the cavity *full* and *solid*. Many dentists too often find on pressing in the last part of the filling, that the cavity is *not quite full*, and there is not room enough remaining to put in any more, but by proceeding in the above manner, they may be sure of invariable success.

H. S. CHASE, M. D.

Woodstock, Vermont.

For the Dental News Letter.

## FLAGG'S LATERAL CAVITY PLATES.

MESSRS. JONES, WHITE &amp; Co.

*Gentlemen*,—The operation for adjusting an entire upper set of teeth to the mouth, is one of great delicacy, and often presents difficulties the most experienced in our art are not altogether prepared to meet. I have reference to those cases that depend entirely upon atmospheric pressure for their adhesion.

The purpose of this communication is to recommend to the profession a plan which I have recently introduced in my practice, with the most satisfactory results; and the purpose of the invention is the more perfectly to secure to the upper jaw artificial teeth, when recourse is had to atmospheric pressure; to prevent the rocking or canting of such teeth, when antagonized by the under teeth in mastication, and to restore the upper jaw to its original fulness, so desirable to retain a natural tone of voice.

I am aware that "cavity suction plates" have been more or less used for many years, of various construction, with different degrees of success; and that one has more recently obtained letters patent, under the name of "central cavity plates," for the greater adhesion to the roof of the mouth; but these have required that much metallic substance should be carried over the entire bony palate; conflicting with the sense of taste, and having its *chamber* so located as to cause a protuberance in the mouth, entirely at variance with all anatomical formation; inducing changes from the natural tone of voice, difficulty of articulation, and other serious complaints from many who have resorted to them.

The nature of my invention consists in so forming the plate, upon which the artificial teeth are secured, as to perfectly fit the jaw in all its parts, as at present ordinarily practiced, except in that portion of the dental ridge immediately behind, and in line with the grinding or molar teeth. At this point I recommend that the plate be made sufficiently depressed to have no bearing upon the jaw, thus forming *lateral cavities* or chambers, which, when exhausted of the air by suction, secures the whole plate firmly in its proper position. This depression of the plate, also, restores to the jaw that fulness which it had lost by absorption, consequent upon the extraction of teeth.

The alteration which I make in the plate, is accomplished in the following manner: After obtaining an accurate impression of the jaw, in wax, I cut out a portion of the wax along the line of the grinding teeth upon each side of the mould, about one inch in length by three-eighths in width, and one-tenth in depth, of an oval and cup-like form; taking care not to warp or otherwise alter the general character of the mould. Into this wax mould I cast my plaster of Paris; this plaster cast, when sufficiently *set* or hardened, I remove from the wax, and trim with a knife suit-

able to prepare the necessary metallic casts for striking up the plate. Should the plate not fit the jaw perfectly from this impression, I recommend that a similar plate be made of *sheet lead*; adjust this lead plate to the jaw, *taking care not to derange the suction cavities*; and, by placing this lead carefully into the former wax mould, cast the plaster once more into it and proceed as before.

I remain gentlemen, truly yours,  
J. F. B. FLAGG, M. D., *Surgeon Dentist*.

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For the Dental News Letter.

## REPORT OF THE PROCEEDINGS OF THE PENNSYLVANIA SOCIETY OF DENTAL SURGEONS.

A stated meeting of the society was held at the usual place, on Tuesday evening, October 2, 1849. Dr. Parry, President, in the chair, and Mr. A. R. Johnson, Secretary.

Minutes of previous meeting read and adopted.

The Examining Committee reported the name of Mr. J. McQuillan, as a candidate for membership, and recommended his election. According to the constitution, an applicant for membership, after being recommended by the Examining Committee, shall not be balloted for until the following stated meeting.

Committee on Evans' amalgam reported progress, and were continued.

Corresponding Secretary reported that he had attended to all his duties.

Treasurer's report showed a flattering state of the finances.

As this was the annual meeting, the society went into an election for officers to serve the ensuing year.

The following gentlemen were declared elected:

Mr. C. C. Williams, President, Dr. James Fleming, first Vice President, Dr. C. H. Bressler, second Vice President, Dr. J. D. White, Corresponding Secretary, Mr. A. R. Johnson, Recording Secretary, Mr. F. Reinstein, Treasurer. Examining Committee, Messrs. F. Reinstein, S. L. Mintzer, W. R. White, A. R. Johnson, and Dr. E. Parry.

Report of Committee on Cabinet and Library, including a paper for library regulations, was read, and taken up and passed, article by article. After which, they balloted for a Librarian, which resulted in the election of Mr. Samuel Stockton White. After which they adjourned.

As this was the annual election, but little else was done, as will be inferred from the preceding report.

We were pleased at one thing, and that was, the interest manifested in the Cabinet and Library. This can be made an useful auxilliary, and we are persuaded, that much will be done by this association towards forming a good Cabinet and Library.

For the Dental News Letter.

MESSRS. JONES, WHITE AND McCURDY:

GENTLEMEN,—If you think the following worthy a place in the News Letter, you have my permission to insert it.

Miss V. E. N., of this county, lost three of her permanent inferior incisors, at about eleven or twelve years of age, from severe pytalism. They were suffered to remain a long time after the action of the calomel, but being loose, and causing considerable pain, they were removed when it was evident they would finally fall out if not extracted. The mother of the young lady, with a mother's anxiety, inquired of a physician if the teeth that were lost would be renewed. His answer was, "No, it is too much to ask of Madame Nature that she should furnish teeth a third time." But, in a year or more, (the parent, from whom I have this account, does not remember as to the precise period,) perhaps it was two years from the removal of the teeth, the parties interested were agreeably surprised by seeing their loss supplied by three others. This occurred some seven or eight years ago. The teeth of third dentition are of full size; well organized and beautiful, with no apparent difference in their texture from those near them, and bid fair to be useful so long as they may be needed.

A. BERRY, D. D. S.

Raymond, Miss.

#### ALLOPATHY.

Take some calomel,  
The more you take the better;  
Mix it with a drop  
Of two of cistern water.

Once in each half hour,  
Take a rousing potion;  
Say, a thimble full,  
If that suits your notion.

Feed some to your dog;  
It will make him vomit,  
And, may be, see stars,  
And perhaps a comet.

Should you chance to die,  
As you're almost sure to,  
You may safely swear  
That it did not cure you.

#### HOMŒOPATHY.

Take a little rum,  
The less you take the better;  
Mix it with the lakes  
Of Wener and of Wetter.

Stir the mixture well,  
Lest it prove inferior;  
Then put half a drop  
Into Lake Superior.

Dip a spoonful out—  
Mind you don't get groggy—  
Pour it in the lake  
Winnipisiogee.

Every other day,  
Take a drop in water!  
You'll be better soon;  
Or, at least, you ought to.

#### HYDROPATHY.

Take the open air,  
The more you take the better,  
Follow Nature's laws,  
To the very letter.

Freely exercise,  
Keep your spirits cheerful,  
Let no dread of sickness  
Make you over fearful.

Let the doctors go  
To the Bay of Biscay,  
Let alone the Gin,  
The Brandy and the Whisky.

Eat the simplest food,  
Drink the pure cold water,  
Then you will be well,  
Or, at least, you ought to.

# THE DENTAL NEWS LETTER.

OCTOBER, 1849.

*Enlargement.*—In our last number we made the proposition to enlarge the present volume, if we had the assurance, that sufficient matter would be furnished by members of the profession. At the time we made the offer, we hoped it would bring out a host of correspondents, as we expected their professional pride would be touched, and that we thus should be supplied with abundant matter to make a good sized, able quarterly.

Surely, we reasoned, they will sustain their profession,—they will be prompt to say something in its favor,—they will evidence their desire to contribute their mite to the common fund. The issue was with them, and we thought they could not keep silence,—that they must come out; but, alas for dentistry, what was the result? Why, instead of at least fifty, ten promised their aid in the way of communications. *Ten* to represent *three thousand*. What a commentary on professional pride.

To those ten, we return our grateful acknowledgments; and at the same time, trust, before the issue of our next number, to add many more names to our list of contributors.

It will now be easily seen, why we have not enlarged. The assurances given us would not warrant it. We shall, therefore, jog along as heretofore, until the members of the profession shall come up to the work, and encourage our “Letter,” by elevating their profession to the stand it is entitled to take; and this can be done in a great measure, by each promulgating his views and reporting his cases. When this is done, we shall have abundant matter,—interesting and instructive,—and none will have excuse for malpractice or ignorance in their profession.

*No. 1, Vol. 1, Dental News Letter.*—If any of our readers have this number, and are willing to spare it, they will oblige us by mailing it to our address. The whole edition was exhausted long since, and we have use for a number of copies of this issue.

We neglected to publish in the last number, a table of contents for the first and second volumes. We now design to publish it, including the contents of the third volume in the fourth number of the present one, when the whole three volumes can be bound together.

This number is printed with new type, which improves the appearance very much, as our readers will acknowledge.

*Fusible Metal.*—The following receipt has been sold to some of the dentists, and is said to be a valuable one. We paid five dollars for it, and thus give it to the whole profession.

No. 1, OR HARD.				No. 2, OR SOFT.			
Bismuth,	-	-	8 parts.	Bismuth,	-	-	8½ parts.
Lead,	-	-	5 "	Lead,	-	-	5¼ "
Block Tin,	-	-	3 "	Block Tin,	-	-	3¼ "
Mercury,	-	-	2 "	Mercury,	-	-	2⅔ "

No. 1, is for the male. No. 2, for the female cast. The lead should be melted first, then add the tin, and when they are well melted, pour the bismuth into the lead and tin. (The bismuth should be ready melted in another vessel.) The mercury should be added slowly. None of the metals should be hotter than just sufficient to amalgamate.

This preparation is poured into the wax impression, which was previously well hardened; thus saving the trouble of taking plaster models, and of moulding in sand.

*Dubs' Patent Forceps.*—In this number will be found an article from Mr. C. H. Dubs, in reference to his patented forceps. There were other documents accompanying it, all of which tend toward substantiating the statements therein made. Without wishing to identify ourselves with the controversy, we feel free to publish all that is offered on the subject, that is of interest, and free from personalities; and say, "Let justice be done, though the heavens fall."

*To Harden Plaster.*—A correspondent speaking of the difficulty in taking impressions with plaster of Paris, says, "I found it required to be left too long in the mouth, in consequence of the plaster hardening so slowly; I therefore mixed my plaster with salt water, by which means it hardens in less than half the time." This is worth a trial.

*Patent Enamel for Plates.*—On the last page of cover will be found Dr. Levitt's advertisement. We have been shown the testimonials referred to, which are of the highest character, and speak strongly in favor of this article.

*Twenty Dollar Gold Medal.*—The Mississippi Valley Association of Dental Surgeons, offered a premium of a Gold Medal, for a hundred of the best teeth, including plate, pivot, molar, bicuspid and gum, and a Silver Medal for the second best. The meeting was held on the second Tuesday of September last, in Louisville, Ky. A friend who attended the meeting writes us, "your teeth have received the first premium, a *Gold Medal*, worth twenty dollars."



*Adhesive Wax.*—A correspondent writes us that he had much trouble to make the teeth stick to the plate, while preparing them to try in the mouth, until he heard of a preparation used by Dr. Griffith, which was an addition of whiting and Venice turpentine to beeswax. Since then, however, he has tried a composition of Burgundy pitch and whiting, which he thinks even superior to Dr. Griffith's preparation, as being more tenacious. He prepares it by working the pitch soft in his fingers, and adding whiting until it becomes somewhat brittle.

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*Spittoon Tops.*—We have received a large lot of these from England, made of stone china, of a good shape and strong.

An article of this kind has long been wanted, and after repeated unsuccessful attempts to have a neat article made in this country, we were compelled to order them from Liverpool.

They will, we think, please the majority.

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*Evans' Amalgam.*—We have not, as yet, received the long expected supply of this article.

From a letter from Mr. Evans, which will be found in the present number, it will be seen that he exercises great discrimination in the use of it, and does not by any means recommend its use, excepting in particular cases.

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We have ordered from England, a few more copies of Tomes' Lectures on Dental Surgery, having disposed of all previously received.

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We have ordered a supply of Palladium from France, in consequence of an increasing demand for it. We expect to receive it by about the first of November.

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*"Nothall & Holmes' Journal."*—This is a small, but neat sheet, published monthly by the above named gentlemen, at Brooklyn, N. Y. It contains much that is of interest, on the diseases and management of teeth, to heads of families, for whom we presume it is designed.

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*"Dental Pearl."*—This is a similar sheet to the above, and for the same purpose; published monthly by C. A. Peck, N. Y.

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*Blowpipe.*—We have a new article of blowpipe, which is in a cylindrical form, about seven inches high and six inches in diameter. It is a double bellows, and can be worked easily with the knee, or can be fitted with a treadle. It has a long leather tube, with a coil of wire inside to keep it distended, and can be turned in any direction. It is a very compact and useful article, as it works well, and can be sold for five dollars.



*Springing of Plates in Soldering.*—Mr. Sherwood, in a communication to the "Dental Recorder," speaking of the frequency of plates warping in soldering: says, "I swedge the plate after the teeth are soldered on. I do this by casting a matrice with a vacant space for the teeth, and I construct it in the following manner: I take the model of the jaw, to which I fit the plate, and wetting plaster of Paris, rather thick, I build it on the ridge of the jaw, against which the teeth rest, and an inch or more high. When the plaster has set, I pare it off smooth, and cast the lead on the die as high as the plaster. When it is cool I take the plaster out and try the plate. If the teeth touch, pare off the lead until they do not hit in the least; then putting the die and matrice together, I bring them down with a few smart blows. The most refractory plate is subdued to a perfect fit instantly."

Another plan, proposed by Dr. E. Taylor, in the "Dental Register of the West," is as follows: "I take an iron wire, the size of a knitting-kneedle, bend it double, the strands one-fourth of an inch apart; take a small wire, and fold on the other back and forward, so as to make a net-work. The whole, when completed, should be the length of the labial surface of the teeth, and curved to correspond with the job to be soldered. When the job is put into the plaster and sand; and we use for this a cast-iron box; the net-work of wire is embedded in the plaster and sand, outside of the teeth, and between them and the border of the cast iron box. This net-work of wire is thus filled with the plaster; and in heating, holds the plaster and sand together, so that the heat requisite for the process of soldering will not crack it. An additional wire might thus be placed in the concave surface of the plate, and thus give additional security to it."

Dr. Harris in the "Baltimore Journal," says: "The plan we adopt is simple, and almost always successful. It is simply to anneal the plate on the plaster model, after having first bound it down closely to it."

Others suggest using heavy plate, say No. 26, the common wire guage, and mixing from a half to two-thirds common sand with the plaster.

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### CANCEROUS ULCERATION OF THE LOWER LIP; HISTORY AND PROGRESS OF THE DISEASE; OPERATION FOR ITS REMOVAL; CURE.

WILLIAM C——, aged fifty-eight, a laborer by occupation, applied to Mr. Gay, at the hospital, Sept. 7th, 1848, for admission, in the hope of having some relief afforded for an ulceration of a cancerous nature of the lower lip. On examination, the cancerous destruction is found to have involved the structures in the neighborhood to a considerable extent. The centre of the lower lip, chin, and front portion of the lower jaw-bone, as far as the inferior border of the symphysis, are completely eaten away, leaving the bone bare, the edges of the ulcerating portion of the

chin and skin in the vicinity being united to the corresponding portions of the bone itself. The portions of lip remaining on either side of the central fissure are much enlarged and indurated, the edge being everted, giving the appearance already described. The central portion of the jaw-bone in front is in progress of destruction, and of a dull yellowish color. The discharge is very offensive and copious, and the man's condition is so disgusting to him, that he is willing, and indeed anxious to submit to any operation that would relieve him of the diseased mass. He states that the first appearance of the disease was in the form of a pimple near the angle of the mouth, on the left side, three years ago; it was hard and painless, and remained stationary for twelve months, at which time it began to ulcerate, and extended itself gradually towards the median line. He had caustics applied at intervals by different medical men, and subsequently he applied to one of the hospitals, where several attempts were made to destroy the diseased parts by caustics of a powerful nature. The ulceration, however, now rapidly extended itself, destroying the lower lip and adjacent structures, presenting the usual appearance of cancerous ulceration in an advanced form, and producing a most unsightly and hideous appearance. Mr. Gay having attentively examined the parts, and considering the chances of relief which an operation held out, determined to endeavor to remedy the old man's distresses.

*Sept. 13th.*—The patient being placed under the influence of chloroform, by Mr. Robinson, Mr. Gay, assisted by Messrs. Wakley and Coulson, began his operation, by making an incision on both sides of the cheek, directly backwards from the angle of the mouth, for the distance of an inch and a half. The divided vessels were at once secured from the extreme point of these incisions; others were made downwards, meeting at a point about an inch behind and below the chin, embracing the whole of the diseased skin. The diseased soft parts were then dissected away from the osseous parts, to which they were connected, by a few strokes of the knife. It was then found necessary to remove about an inch and a half of the central portion of the jaw-bone, which was speedily effected with a small saw. The wound was large, and it became somewhat problematical how it should be filled up, whilst the formation, and almost the position of the mouth, were left at the taste and discretion of the operator, by detaching the under portions of the cheek on either side, and drawing them together, and upwards at the same time, bringing the two cut edges of the jaw-bone into opposition; it became apparent that plenty was left to fill up the vacuity. Mr. Robinson, the dentist, then skilfully fastened the two ends of the jaw-bone together by casting ligatures around the teeth. This done, and the parts being brought together by suture, the patient presented an appearance which justified the anticipation of relief from his disgusting malady without much disfiguration. The lower lip,

which was formed by a straight cut surface, was arranged so as to be even with the teeth of the lower jaw. No teeth were extracted previous to the commencement of the operation, Mr. Gay stating that he had not, in his practice, found it necessary in operations on the lower jaw.

The effects of the chloroform having subsided, the patient was put to bed; and two hours subsequently to the operation, expressed, by signs, that he was comfortable. A draught, containing one grain of muriate of morphia, was given at bed-time.

14th.—Has passed a comfortable night, and is free from pain.

15th.—Bowels have not been relieved since the operation. The wound, which was dressed this morning, looks healthy; slight discharge of a healthy character from its surface. To have a dose of house-medicine. Diet to consist of strong beef-tea, light pudding, and four ounces of wine daily.

The details of the subsequent treatment of this case are needless. The wound was dressed daily, and the greater part healed by the first intention, a few exuberant granulations requiring the application, from time to time, of the nitrate of silver. The case progressed very favorably, and the man left the hospital, a few weeks after, at his own request, with the relief perfect, so far as the removal of the disease was concerned by operation. The tongue could be partially protruded at the time of his leaving the hospital, and articulation, although confused, was tolerably good, considering the interference with the parts concerned in the operation.

It ought also to be mentioned, that immediately, and for some time after the operation, he was unable to swallow, so that it became necessary to place his food (which was for the most part of a liquid kind) in the upper part of the pharynx, by means of a long tube constructed for the purpose.—*London Lancet*.

*Extract of a letter to the Baltimore Editor, from MR. ANDREW WILSON of Edinburgh, dated May 16, 1849.*

SIR,—Having lately been perusing your valuable work on dental surgery, I find that the method recommended for backing mineral teeth, differs considerably from that practiced by me, and which as I think preferable, I will briefly describe, so that you may judge for yourself. After having partially fitted the tooth to the plate, take a piece of thick platina foil, (as thick as can be used conveniently,) and pressing it against the back of the tooth, perforate it where it is marked by the pins, then cut it into the shape of the back as wished to be, and press it as closely as possible to the back of the tooth.

It will now be requisite to apply a little borax to the platina pins which come through the back, and placing the tooth with its face downwards upon a thin piece of pumice, covered with dry plaster of Paris, put several pieces of gold (according to the thickness required) upon the platina back, slowly heat it, gradu-

ally raising the heat till it is considered safe to melt the gold with a blow-pipe, when, upon continuing the blast, the gold will rapidly flow over the whole platina surface, incorporating so accurately the pins in the tooth, that I have never seen a case of their being withdrawn when the tooth has been broken, during the whole time it has been in use here, (nearly eight years,) they always remaining firmly fixed in the backing upon the plate.

After the backing has been run and the tooth allowed to cool slowly, it is filed to the requisite thickness and shape, when, being closely fitted to the base, it is finally soldered to the plate, as described in your work. We generally use a mixture of fine sand (white) and plaster of Paris, equal parts, for encasing the piece, and also place a thin curved strip of platina in front of the teeth, having a layer of the above mixture on both sides of it, so that should the plaster crack in the soldering, (although it is less liable to do so than plaster alone,) the platina keeps the teeth from shifting their places. The whole time occupied in heating and backing a tooth occupies about half an hour, and when several are doing at once a very little longer.

We generally employ the same method in making ready the base of a mineral pivot, instead of the tedious process of making casts and striking a plate, and fitting a great deal better to the root, (in consequence of the contraction of the metal during its cooling,) of course all that is required for attaching the pivot, is to perforate the platina base and passing the gold wire through it, solder it to the platina, and run gold over the surface of the platina at the same time.

The following are the formula computed and employed by my father, (the late Mr. Wm. Wilson, dentist,) for either reducing or raising the fineness of gold to any required standard.

1st, Let  $a$  represent twenty-four carat of fine gold.

$w$  its weight, and  $b$  the required carat, then the weight of allow to be added is  $\frac{a-b}{b} \times w$

2d, Let  $a$  represent twenty-four carat gold.

$b$  the required carat.

$c$  that to be raised, and

$w$  its weight. Then will  $\frac{b-c}{a-b} \times w$  be the weight of fine gold required to be added. Thus, 1 oz. 16 carat =  $13\frac{1}{2}$  g. and  $6\frac{2}{3}$   $a$  (2.1) and adding 1 oz. = 20 g. We have got  $33\frac{1}{2}$  g. and  $6\frac{2}{3}$   $a$  (5.1) or 2 oz. 20 carat as by the formula  $\frac{20-16}{24-20} \times w = 1 \times w$  or an equal weight of fine gold.

Of course the proportions of the alloying metals depend upon use, color, and hardness required.

The above methods may be in more general use, than I know of, as in *this country*, from absurd and mistaken notions. No one can say what methods another practitioner may employ.

*Am. Jour. and Lib. Dent. Science.*

# THE DENTAL NEWS LETTER.

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## ADDRESS,

*Delivered before the "Pennsylvania Association of Surgeon Dentists," at a Stated Meeting in Philadelphia, Dec. 4, 1849. By JAS. FLEMING, M. D., of Harrisburg, Pa.*

GENTLEMEN—It is not without some reluctance that I offer you any thing at present by way of an address. An absence of more than a year from your stated meetings, has made me quite unacquainted with the subjects that have most engaged your attention. But as you have done me the honor to solicit my co-operation, and have extended to me the friendly hand and the cordial welcome, I cannot refrain from at least expressing my willingness to contribute, so far as in me lies, to the furtherance of the excellent objects you have in view, nor from giving utterance to my best wishes, both for yourselves, personally, and for the good cause itself, which you are associated to promote.

It is to me a source of no ordinary degree of pleasure, to meet thus in a social relation, a portion of my professional brethren, who, animated by the love of science, and prompted by a high-minded spirit of philanthropy, have come together "for the purpose of promoting the honor, character, and interests of the Dental Profession." I regret, exceedingly, that I cannot meet with you more frequently, and derive both the pleasure and profit of participating in your deliberations. I love the cause, and I honor the self-denying spirit of those who are engaged in it. It is a work of benevolence; and there is one reward, at least, which you will reap for your efforts:—it is that which arises from the consciousness of doing good.

There is no profession, I believe, which embraces, in proportion to its number, so great a variety of talent and *character*, as the Dental; and there is none, perhaps, in which the requisite qualifications, for successful practice, are less generally appreciated. For, while it may be true, that both here and in many other places, the importance of skill and faithfulness in dental practice may be properly understood by the majority, it is also true, I am persuaded, that in comparison with the remainder in these places, and elsewhere throughout the State, the proportion will be found to be but small; and of these, the majority, perhaps, will be found to have no conception of it. This is the reason why *quackery* has stalked abroad with so much boldness and effrontery. The door



has been widely thrown open for the practice of every species of empiricism and imposture.

The effort to remove this wide spread evil, is, I say again, a work of benevolence; and one that calls loudly for the united energies of the Profession, in order to carry it successfully onward. Already have the best of minds been moved to noble efforts in this cause, and their success has indeed been great. It is certain, however, that there is yet much to be accomplished; the light of truth and science must be still farther disseminated, and the line of distinction between skilful and empirical practice must be more clearly defined, and its importance made more apparent. Our professional standard should be elevated, and so placed, that all may see and appreciate its importance.

One of the means for accomplishing these ends, is, undoubtedly, the establishment of a proper system of *Dental Education*. And, connected with this subject, are some thoughts and opinions, which I may take occasion to present, at some future time, for your consideration. At present, I shall only take the liberty to say that I think the Profession owe it to themselves and to the public, to establish out of the talent it possesses, some creditable institution for this purpose; and I trust the day is not far distant, when a *Dental College* will be located in Philadelphia, of the same high tone that so distinguishes her Medical Institutions. This idea is, perhaps, not a novel one to any one of you; but it is one, nevertheless, which I think is peculiarly worthy the consideration of this Association.

The demand for such an institution is, in my opinion, daily increasing. When we look back over the history of dental science, we scarcely know which to admire most, the rapidity of its growth, or the great degree of perfection to which it has already attained. It is, at the present day, compared with *medical science*; a *living picture* of its history and growth through the long series of ages in which it has been cultivated. We are cotemporary with names which must ever stand amongst the first and highest in the future history of our profession; we could point to our Good, our Hunters, our Sydenham, our Armstrong, our Mackintosh, our Arbuthnot, our Cullen, our Abernethy, our Baillie, our Radcliffe, our Boerhaave, and a host of such names, taken at random, even to our Galen, Celsus, or Hippocrates. Yet we have, comparatively speaking, but few institutions for collecting together the scattered rays of light and truth, that emanate from scientific minds, and concentrating them upon the ardent votaries of our profession.

Such an institution must necessarily be an advantage, both to the profession and to the public. Its eleemosynary department alone, (which of course would be attached to it,) would be a means of doing much good, and must, necessarily, be of incalculable benefit to the student; besides, there is a want, which the

*medical* student often experiences, that might by this means be supplied. For dental surgery is a legitimate branch of the great healing art; and, I believe, that a thorough knowledge of the one, can never be properly attained without a correct understanding of the other. For this reason, I believe that an institution of this kind should embrace a very liberal course in the study of medicine. The Baltimore College was established upon this basis, and we point with feelings of pride to its growing usefulness. Let another of a similar kind be established in Philadelphia, and they will enhance the prosperity of each other.

If medical quackery is an evil requiring the united efforts of the profession to suppress, surely it is required in ours. The medical empiric is often less to be dreaded than the dental. The former will frequently deal out his nostrums with the most unblushing ignorance of all pathological science, and to the absolute hindrance of his patient's welfare; yet there is an ever-active principle within us, a restorative energy, which the Author of our being has implanted in our nature, that will overcome, to a truly wonderful extent, the obstructions and hindrances that are thus thrown in her way. The functions of life will again be restored to their healthy tone, and the empiric, perhaps, reap a rich reward for his supposed agency in the result! Not so, however, with the latter, or dental practitioner: the result of his treatment will be exactly in proportion to his ability and faithfulness. Nature has left this department of the healing art almost entirely free from her restorative agency, and time only serves to develope the evil consequences of mal-practice.

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There is one consideration, however, which the student of dental science will always have for his encouragement: it is that his study is, to a very great extent, that of a demonstrative science. There are certain fixed laws and established principles by which he will always be governed; and his ability to come up to their requirements in his practice, will always ensure him success. On the other hand, medical science is even yet, after the culture of ages, but a *science of mysteries*; and while it requires in practice, the very highest order of mind and intellect, the veriest empiric will often be found to outstrip the accomplished practitioner, on account of the very mystery that always attends success. "No profession," says Dr. Gregory, "requires so comprehensive a mind as medicine. In the other learned professions, considered as sciences, there is a certain established standard, certain fixed laws and statutes, to which every question must constantly refer, and by which it must be determined." In medicine, this standard and these laws can never be indisputably established. There is a degree of success, apparently, attending every system that is practiced upon; and to the unbiassed mind in search after truth, there is, undoubtedly, some-



thing instructive to be found in them all: it matters not by what name a system may be called, whether it be Heteropathy or Homœopathy, Hydropathy or *Herbopathy*, the truth will always be promoted by a fair observance of results. But death is in the world, and while he continues to lay his cold hands upon his victims, mystery will continue to surround the science of medicine.

Nevertheless, I believe there is no study better calculated to develope and exalt the mind, to create liberal views of human nature, and lead to habits of investigation and research, than this. Let the student, either in the Medical or Dental Profession, take up the history and writings of some of the most eminent medical philosophers, whose whole lives were devoted to the honor and interest of their profession, and the advancement of medical science, and if they do not partake of the same spirit that animated their bosoms, and find their own professional zeal quickened, and their ambition newly excited, they have certainly mistaken their calling.

In the history of the learned professions, there may be considered two very distinct eras: the first is that in which the profession derives its character from the men who are devoted to it; and the second is that in which men derive a character from the profession itself. The first of these is evidently the one upon which we have fallen; and for this reason every good dentist will feel the necessity of aiding in the establishment of Institutions and Associations which have for their object the promotion of the *honor, character and interests* of the profession. For it is only through such means, properly directed, that *the professional character will be elevated and sustained, and mutual improvement, social intercourse and good feeling promoted.*

I bid, then, the "Pennsylvania Association of Surgeon Dentists," God speed! And may their future success in carrying out the objects for which they have associated, be commensurate with the past progress of Dental science, and with the onward spirit of the age.

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Communicated for the Dental News Letter.

## HOW TO PREVENT THE WARPING OF GOLD PLATES.

Several articles have appeared in the Dental News Letter, and several other periodicals devoted to subjects upon dental science, regarding the twisting or warping of gold plates, intended as the basis for artificial teeth, by the action of heat upon them whilst soldering the teeth to the plate.

The articles referred to, have been edifying, instructive and amusing. Instructive from the important facts which have been collected, and the amount of unwritten and unrecorded knowledge which has been constantly increasing, and which, by the

liberal and enlarged views ever observed on the well-filled pages of the Dental News, has gradually drawn the dental experience from their hiding places, to the great benefit of the whole dental profession. A few years since, it was a common occurrence, at least I experienced it to be so, that when inquiring of a professional "brother," in what manner he prevented his "suction" plates from warping, the invariable answer was, "My plates never do warp." Hence, the inquirer was not only led astray, but such statements at once led him into the conviction or supposition, that he either did not rightly understand his business, or otherwise, was a mechanical bungler. His pride, henceforward, would prevent him acknowledging such accidents as the warping of gold plates in his manipulations. Many thanks are due to dental periodicals, and those dentists with *cacæthes scribendi*. By these the dental mechanic has been from time to time furnished with the details of the complaints, confessions and remarks upon these untoward accidents in the practice of several of the members of the dental profession, which have exacted inquiries, how such results, from the application of heat to the metal, were brought about or produced, and by what method such vexing perplexities could be obviated or overcome. It is not necessary here, to review the remarks of the several writers upon the various supposed causes, and their modes of prevention, for such unfortunate terminations to all the skill, time and patience, devoted upon their labor; sufficient will it be, in your limited space, to show in as succinct a manner as possible, how such disasters may be prevented; nay, defied from the immediate commencement of taking in hand, the formation of the plate to the model of the palatine arch of the mouth, to the final blast of the blowpipe, to complete the workmanship of a complete set of teeth.

Some years since, I was not well enough acquainted with the metallurgy pertaining to the peculiarities of dentistical mechanism, to protect myself against the frequent recurrence in my laboratory of the accidents referred to. It was my fortune, at that period, to be engaged upon a complete piece of dental mechanism, comprising the upper and lower sets of teeth for the mouth of an eminent metalist and long established practical jeweler; stating to him these difficulties which frequently perplexed me. He at once gave me the so much desired information, both to myself, and, as I find, to my professional brethren, also. Years of experience, trials and attention to dental metallurgy, have confirmed the merits of the information which I received, and my experiments have exhibited the important fact, that the apparent difficulty of preventing the warping of gold "suction" plates for atmospheric pressure cases, can easily and most successfully be obviated. At present, it is impossible for me to clearly demonstrate, or even offer an opinion that will satisfactorily explain or be acceptable, regarding the *modus operandi* of the action of the agents I shall mention, upon

the gold. All I can offer, for the benefit of the readers of the Dental News, are the simple facts:—The gold being prepared for use, always bear in mind, that the gold as prepared and *alloyed* by Mr. A. Jones, is about the best quality to test their truth. If too much copper or *bad "filings"* be alloyed with the gold, warping of the plates is most certain to follow the application of heat. Also, using solder with too much copper, has the effect of contracting itself and drawing inward upon the face or line of solder, the gold basis upon which the teeth are fitted. The gold basis previous to being struck up or "swedged" (?) upon the dental die, should be heated to a dull red heat, and whilst in this state thrown it into common molasses; after which, it is to be heated again in a similar manner, and cast into the diluted sulphuric acid ("pickle," ) and then struck up to the dental die; being properly fitted, repeat the process with the "pickle," and it is now fully prepared with little hazard of any warping from the effects of the re-application of heat, unless the heat applied is carried to such an extent as to "sweat" its surface. To make *certainty doubly sure*, the following precautions will repay the trouble bestowed. Presuming the teeth to be ground properly, fitted, and in close apposition with the gold basis, and encased with the usual protection of sand and Plaster of Paris. The heat should be applied to the base of the casing on the palatine gum side of the gold plate; and not to the lingual or teeth surface of the exposed gold and teeth linings. The observation of this feature in the operation of soldering is of great importance. The plaster casing thus first contracting at the base, binds the teeth close to the external or gum portion of the plate. The teeth, also, become heated with less hazard of their cracking. By heating the case first, on the lingual or teeth surface, the plaster is apt to shrink and contract its circle, so that the cutting lines or edges of the teeth are drawn inwards, and the superior lines or gum edges are drawn off and away from the gold plate, so that all the time and trouble devoted to a close fitting are lost to the operator, and the beauty of the work spoiled. This will, also, occur by the use of common gold solder. The copper, as I have before stated, contracting more than the gold, when it cools, draws the gold plate upwards and inwards towards the internal median line of the central incisors. It is, therefore, of importance, that the dental mechanic should not use solders at different times of various qualities. The larger the case, the more difficult will it be to manage a strange solder; be it weak or strong, or in other words, of a high or low carat in quality. This difficulty is often met with, in reparings done to atmospheric pressure cases made by other hands. A superior or inferior quality of solder being applied, causing the plate to warp from the above stated causes; and the dentist repairing the case has to submit to the remarks without being able to assign a reason for his apparent want

of skill. I have hurriedly penned the above few remarks, with what benefit to your readers I leave to them to acknowledge, after their experiments shall have tested its superiority.

Very respectfully,

A. C. CASTLE, M. D.

New York, December 10, 1849.

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The following is from an essay, read before the "Penna. Association of Dental Surgeons," at their meeting held Dec. 4, 1849.

### CARIES OF THE TEETH.

This malady, which is so extensive, has occupied the attention of the Dental Profession throughout the whole world. 'Tis true that much has already been done for its relief; but not enough has yet been accomplished, to crown our labors with invariable success. We must, therefore, not remain inactive, but seek constantly for further light on this subject, and increase our knowledge on a point so important to the health of these organs.

Caries of the human teeth, I am fully persuaded, is only occasioned by external agents. Close examination, convinces us that the enamel of a tooth must first be injured by a fracture, or decomposition, caused by injurious substances coming for any length of time in contact with it, before the bony substance of the tooth can be affected. The enamel, when perfect, and kept thoroughly clean and uninjured, cannot decay.

Caries takes place where there is a deficiency of this protection; as, for example, we find it very often in the indentations of the molars and the bicuspid, or between the incisors, where there is only a thin coating of enamel; and the acidity of the saliva, when in an unhealthy state, can act upon it, which is particularly the case in the irregularity of the arrangement of the teeth, when particles of food are suffered for any length of time to remain between them, which must decompose the enamel, and ultimately destroy the tooth. Also, a too sudden change of temperature, offensive roots of old teeth, depositions of tartar, particularly that of a green color, and which is so often found on the teeth of young individuals. But the most injurious of all, is the want of cleanliness; which, suffering the slime to accumulate and harden to tartar, causes, frequently, diseases of the vessels of the gum, which constitute an active poison to destroy the teeth.

Whatever tends to irritate and inflame the gum, *must*, in a greater or less degree, produce a corresponding irritation in the teeth, from their close connection to each other; and when we consider how very strong the secretions of the mouth are, capable of dissolving the hardest bone, we cannot doubt, that when changed by inflammation of the gum, or other causes, they can destroy the teeth.

Caries appears in three distinct forms, namely:—slow or dry, spongy and white caries.

The slow or dry caries, commences in a small brown speck, which gradually increases in circumference. The progress of it is slow, and it often takes years before a tooth is destroyed; where in spongy caries, when the enamel is once penetrated, the progress is more rapid. The decomposed bone is like cartilage, and can be detached from the healthy bone; where often the nerve will be found to be exposed.

White caries is still more destructive in its nature by the rapid progress it makes. It is rarely noticed by the patient, except by the soreness it occasions by taking cold, or warm fluid in the mouth, or by the peculiar smell it has; and often, before the patient discovers it, the tooth is already so far gone, that the only remedy is to kill the nerve, or extraction. This kind of caries looks like chalk, and decomposes a good deal of the bony substance of the tooth, before the enamel will break off. This led many to the theory of deep-seated decay; but we have too frequent opportunities to find that it had penetrated the enamel through pores, by decomposition or fracture. This is the most painful, by the inflammation that accompanies it, and is peculiar to persons of scrofulous nature and delicately formed teeth; and in young persons where cleanliness is not practiced. Mr. L. S. Parmly, judiciously observes, "when the teeth are kept literally clean, no disease will ever be perceptible; their structure will equally stand the summer's heat and the winter's cold, the changes of climate, the variations of diet, and even diseases to which the other parts of the body may be subject from constitutional causes."

Slow decay can easily be arrested in its progress, when taken in time. In the first place, often entirely with the file; and when a cavity has already formed, by plugging it properly with gold, will secure the tooth for lifetime.

Spongy, or white caries, wants often a different treatment, on account of the soreness it produces in the bone by inflammation; it is of such a nature, that when we do not dry out the cavity, and remove every particle of the disease, it will decay under the plugging; and the moisture, which is sweated out of the pores of the tooth, will often force the plugging out of it, by taking parts of the enamel along. Many cases have come under my notice, of teeth affected with this caries, that had been treated by our most eminent dentists, here and elsewhere, which had decayed again, as I have stated above, in spite of all their skilful operations. It seems as if nature were often determined to destroy to the end; and we have such teeth so often to treat, where a great deal of the bony substance is destroyed, and only a thin and brittle enamel remaining.

In spongy and white caries, I have adopted the following method of treatment:—

To prevent the pain caused in excavating the cavity, I use a



strong solution of benzoin and tannin, with which I saturate some cotton, and let it dry again for use, in order to evaporate the alcohol, (as I consider all spirituous liquors increase inflammation.) This cotton will act in many cases as a temporary plug; it adheres tightly to the bone, expels all moisture, takes out the inflammation and all the pain, and facilitates the operation. When two or three times repeated, the cavity can be thoroughly cleansed and plugged without pain; and never discolors the tooth.

In obstinate cases, a little arsenious acid may be used under this cotton plug; but care must be taken not to use too much; for, in some irritable cases, it will produce violent inflammation, so as to destroy the tooth, particularly where the pores of the tooth are large. Several cases of this kind have come to my notice. A young lady of delicate constitution, applied to a dentist here, to have a second incisor plugged; the tooth was very sensitive; but it was not much decayed, a little arsenious acid was introduced, which produced in the evening a violent inflammation; the family physician was called, who ordered four leeches on the gum. The next morning the young lady called on me; I told her it was not the operator's fault; it was owing to the nature of her tooth, and it would have been a great gratification to her dentist, if she would have called when it commenced aching; and it would yet be of some service to let him see it; but she would not do so, and wished me to attend to her. The tooth was quite red from the severe inflammation.

I opened into the nerve cavity, and found that the nerve was dead. I punctured and took it out, and after all the irritation had subsided, in about a week I plugged the tooth with gold. The tooth recovered, in a slight degree, its natural color; but is still of a greyish tint.

Another case I treated, was a young lady of about twenty-one years, who called upon me to plug a lateral incisor. The tooth was very sensitive, and I therefore placed in it a very small piece of cotton, prepared with arsenious acid, and directed her to call the next day, or sooner, if the tooth became painful. In about four hours she returned, complaining that she suffered exceedingly from a heating pain. I took the cotton out, and washed the cavity clean with some sugar of lead water I had been using a minute before to syringe an abscess, and this so cooled and eased the tooth, that I was enabled to excavate a good deal of the caries; and after keeping it well covered for several days with the cotton, prepared as I have before related, the tooth was plugged with facility; it was not at all discolored, and is yet healthy, and has continued so since last August.

Thus we see what benefit would be derived, if the patient would strictly follow the advice of the dentist, and call on him as soon as such accidents occur.

I could mention numerous cases, showing the complete success

I have had in the treatment, from the use of this solution of benzoïn and tanin, which I have employed even in cases where the nerve was nearly exposed.

I am convinced, that those who try it, will find it a good article. It dries out the cavity thoroughly, and decay will not progress when it is placed tightly in the cavity, as it keeps the tooth dry, and can be worn as a temporary plug for several months.

I now conclude this essay, with the sincere hope, that the members of this society, will bring something forward from the stores of their experience, to attract the attention of the Association, and generously impart some of the knowledge they have acquired, for the benefit of their fellow-members.

F. A. REINSTEIN.

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For the Dental News Letter.

## A SYSTEM FOR RECORDING DENTAL OPERATIONS BY INDICATORS.

By F. L. CRANE, D. D. S., Easton, Pa.

To be able to turn to a record of operations previously performed, has frequently and for various reasons, been to me a source of much gratification. A system for the keeping of dental accounts, by which such a record is made with facility and accuracy, is at least desirable. I therefore beg leave to submit the following sketch of a system to my brother Dentists, that it may be compared with others, and perhaps help to bring out a more perfect one. As the indicators cannot be presented to the eye in this article, they must be supplied with pen or pencil during its perusal.

In order to understand the following details the more practically, take a blank leaf of a day-book and rule three spaces, each a quarter of an inch wide, parallel with, and closely to the left of those which are ruled for the reception of cash amounts. The first, or left hand space, is for the reception of the division indicators; the second, for the class; and the third, for the surface of the tooth operated upon.

The thirty-two teeth are considered in four divisions, of eight teeth in each; the median line being the line of division, called the upper right, upper left, lower right, and lower left divisions. To indicate in which of these divisions the particular tooth operated upon is situated, a short perpendicular line is made in the first or division space, with a short horizontal line at the top and right of the same for the upper right division; top and left for the upper left; bottom and right for the lower right; and bottom and left for the lower left divisions. A small right-angular figure.

The teeth, for the sake of convenience, are reckoned in eight classes, of four teeth in each class. One letter placed in the



second space, and following the angular figure, will indicate the particular tooth in the division you wish to record: thus, *f* stands for front incisor; *l* for lateral incisor; *c*, cuspidatus; *b*, first bicuspid; *d*, second bicuspid; *m*, first molar; *o*, second molar; *r*, third molar.

To show the surface operated upon, one letter also follows, placed in the third space. Thus, *m* in this space stands for mesial surface (anterior surface of the molars and bicuspid); *a*, anti-mesial surface (posterior surface of the molars and bicuspid, and right lateral surfaces of the incisors of the right divisions, and left lateral surfaces of the incisors of the left divisions); *e*, external surface (labial); *i*, internal (lingual) surface; *g*, grinding surface.

These names for the surfaces, it is believed, will be found more convenient and definite than any others; *anterior* and *posterior* are not sufficiently definite for *all* of the teeth, being situated in the form of an arch; and *labial* and *lingual* have the same initials. These three sets of indicators,—for the divisions, classes and surfaces—in their proper connection, are convenient to use in writing out the details of any particular case in which it is desired to point out a given tooth or surface, as they save time and space.

The signs to indicate the operation performed are placed upon the left line, immediately preceding the division sign, which line should be ruled double. A small dot or period, placed upon this line, stands for the word filled; two dots, re-filled; and a short dash across the line, shows that the given surface has been filed and polished without being filled. The sign for filling may be varied to any required extent to show the position of a filling upon a given surface; thus, for a posterior depression upon a grinding surface, use a common check mark, carrying the pen to the right, at an angle of forty-five degrees, and for an anterior depression use a similar mark, except that the tail is carried to the left. A comma indicates a filling near the external surface, and the same character inverted records a filling near the internal or lingual surface. These latter signs are principally used for the grinding surfaces when the filling is not central.

More than half of these indicators may be dispensed with in recording a series of operations in the same mouth, and often one only is necessary after the first operation is on record, which it will be perceived requires four indicators; for as each operation is recorded beneath the preceding, it is unnecessary to repeat the sign for filling until a different symbol is required; nor need the division indicator be repeated as long as you are recording operations in that particular division; or if the division be changed for another, and the class or surface the same, it is not necessary to repeat their indicators, or place one letter or symbol immediately beneath another similar one. The propriety of this will be quickly perceived by trying a few examples upon paper.

I think it well to carry out the price received or charged, on

the line with its record for each operation, filing, &c.; as well as for filling. I know some who charge little or nothing for filing, whereas it is an operation in which their reputation is as much concerned as, perhaps, any other; and I would ask, whether it is not reasonable and fair that they should receive at least half as much for preserving a tooth by filing and polishing as they would have asked for filling the same with gold? A sufficient alphabet should be bound in the Case Book, in which to enter every patient's name, whether the operations be paid for or not; if paid they should be so marked in plain letters, if not, they stand charged. The record will leave a blank space upon the page for remarks. I think it best to give the book-binder directions to rule each page of the Case Book for two headings, and put but two names upon a page; those being at the top. For making remarks in the Case Book, it is convenient to make use of short-hand or Phonography. To such as may not have paid attention to this elegant style of reporting, I will state that the "Complete Phonographic Class Book, containing an inductive exposition of Phonography," may be obtained, by mail, of John F. Trow, 49 and 51 Ann street, New York. Price, 37½ cts.

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For the Dental News Letter.

MESSRS. JONES, WHITE AND McCURDY:

*Gentlemen*,—Having read with much pleasure and profit, the last as well as many other numbers of your News Letter, permit me to trouble you with a few lines, as a commencement of my quota, towards sustaining so useful a little work. For many years past I have given much attention to the soldering of whole sets of teeth, and rarely, if ever, experienced any difficulty as regards springing the plates; particularly, since I have used your excellent gold plate No. 28, which for toughness and uniformity, deserves the highest praise. I believe my success depends in a great measure on the attention given to the arrangement of the linings, the quantity of solder used, and the care taken not to allow it to connect the linings together, and thereby form a contractile band round the plate, which on cooling must inevitably warp the piece; again, the sand used must be very clean and well sifted, to remove all foreign matter, which, when heated, might expand and crack the mass, which, however, it may be better to bind or confine, and carefully trim of an equal thickness around the plate and teeth, to render the expansion and contraction as uniform as possible. By observing the above rules, I am under the impression, that neither will the plaster crack, nor the plate warp, nor will there be any occasion for the re-swedging the plate with the teeth on; a dangerous operation, to say the least of it, and one seldom tried by me without accident to the teeth, from the jar of the hammer.

Yours, &c.,

R. G. HOLMES.

For the Dental News Letter.

REPORT OF PROCEEDINGS OF THE PENNSYLVANIA  
SOCIETY OF DENTAL SURGEONS.

A stated meeting of the society was held December 4th, 1849, at the usual place. Mr. C. C. Williams, President, in the chair. A. R. Johnson, Secretary. After the usual preliminary business, Mr. J. McQuillan was elected to membership.

An essay from Dr. Jas. Fleming, was read by the Secretary; after which, on motion of Mr. S. S. White, a vote of thanks was returned to Dr. Fleming; also, that a copy be furnished the proprietors of the "News Letter" for publication.

A communication from Mr. F. Reinstein, was now read; the subject—caries.\* In some prefatory remarks, he says, "On establishing the society, it was forcibly impressed upon our minds, that social intercourse, and the imparting to each other the knowledge obtained in the daily practice of our profession, would add greatly to the advancement of each individual member in the dental art.

"It is highly necessary that we awake to the importance of improvement, and, that in future, every one of us, to push on the good work, ought to bring, in turn, something before the society, no matter how small, in which our own views or practice is given.

"Our art opens for us a wide field of observation, on which to write or speak, and those who have, by experience, a better view of the case related to them, should meet the other with kindness, to show him his error, if any. The most timid, would in this way gain confidence, and be encouraged to collect and arrange his ideas on the subject which he may wish to bring before the Society.

"By these means, the great object of our Society will be accomplished, and ourselves bound more closely by the ties of fellowship."

Oral communications being now in order, Dr. J. D. White made a few remarks on amalgams, condemning their use, on account of the mercury they contain, and their contraction in hardening, etc.; giving it as his opinion, that it was not necessary that there should be oxydation of the metals to be detrimental to the teeth.

On motion, the Librarian was authorized to subscribe for the "Dental Register of the West."

Messrs. Jas. Parry and A. R. Johnson, were appointed to deliver essays at next meeting. After the transaction of some important business—Adjourned.

\* Selections from which will be found in this number of the News Letter.

## OBSERVATIONS UPON THE LUXATION OF THE JAW, AND A NEW METHOD OF REDUCING IT.

BY M. NELATON.

Translated from the French by THOS W EVANS, Dentist, for the Dental News Letter.

"When I published, in 1847, for my *"Eléments de Pathologie Chirurgicale,"* the article upon the luxation of the under jaw, I was not long in perceiving that the doctrine upon that point, pathology, was not founded upon sufficient proof. I was struck, particularly, by the remark of Monsieur Malgaigne, to wit: That all the classical authors of the present day, had written as if luxation was a physiological position of the under jaw, that could be produced voluntarily and without pain, and that supposed displacement has not a tendency to continue as in the true luxations.

Although at that time I had not had the occasion of observing that affection, I did not hesitate to pronounce against the received ideas; I have since searched, by making experiments upon the dead subjects, to re-establish an old theory quite abandoned,\* a theory, according to which, the continuance of the displacement would find its cause in the contact which takes place between the summit of the coronoide apophyse of the lower jaw and cheek bone.†

One can easily imagine how much I wished to be enabled to observe that luxation, in order to study it from the new point of view which I had taken of it, and also to verify my theory.

The first case presented itself to me at the St. Antoine Hospital, but as I was searching to assure myself of the exact position of the coronoide apophyse, and of its relation to the cheek bone, whether the simple pressure of my fingers introduced into the mouth would have been sufficient to disengage it, or by any other means. Before having been able to proceed to my examination, I felt the jaw slide from under my fingers, and contract, as it were, by itself—certainly much against my will. But in a month after, another occasion presented itself, and as favorable a one as I could have desired.

*Obs. 1.* A woman had luxated her jaw on both sides in gaping, about eleven o'clock in the evening. An eminent physician, M. Beaugrand, was called immediately, and made several unsuccessful attempts at reduction. They then called in another physician, M. Poultier, who having had several opportunities of reducing luxations of the same kind by the ordinary method, and did not doubt but what he should succeed as well as in previous cases, but he was as unsuccessful as M. Beaugrand. M. Manget was called in his turn, and made new attempts of various kinds; and

\* See "Dissertation, in letter form, upon book of the diseases of the bones;" Paris, 1726; without author's name, but generally attributed to Humauld.

† See the exposition of this theory "Review Medico-chir.," v. i. p 226.

finally at two o'clock in the morning, they abandoned the patient, without having succeeded in reducing the luxation.

The next morning, the three physicians met again. In order to diminish the muscular contraction, they employed successively, bleeding, baths, inhalations of chloroform; all their efforts still remained ineffectual. M. Lemaitre-Floian was called in after them; he continued the same course of treatment, without success. At last, the next day, I was called.

The patient was suffering very much, she had passed a dreadful night, as one may imagine; the repeated pressure had caused excoriations in the mouth, and swelling in the cheeks, and also in tempora-maxillaires and under maxillaires regions. Here are the phenomena of the luxation.

The mouth was partly open, the upper incisors were separated about three-quarters of an inch from the lower, and they also were carried forward about half an inch. Things very remarkable, the patient could still increase, voluntarily, the space between the jaws; but she could not bring them nearer together. The condyles had quitted their ordinary places, but were forced against the root of the zygomatic apophyse.

The patient was seated in a rather low chair. I examined by the mouth, the coronoide apophyse, of which I was enabled to feel the summit; the summit was propped against the lower angle of the cheek bone, and on the outside of the tubercle, which results from the articulation of that bone with the superior maxillary.

All these things well observed, I proceeded to the reduction; in order to do that, I requested the patient to open the mouth as wide as she could, and while she was executing this movement, I placed my two fingers upon the coronoides apophyse, and without even embracing the under jaw, and without taking any other point of support, a simple pressure backwards caused the condyles to return at once in their cavities; the reduction was complete, and all the symptoms disappeared.

I write in my "*Eléments de Pathologie Chirurgicale*," after having described the old methods, "It is very probable that one might succeed equally well in reducing, by forcing the coronoide apophyse directly backwards with the thumbs placed either in the interior of the mouth or upon the exterior, immediately under the cheek bone, and by taking a point of support with the other fingers upon the mastoïdiennes regions."

Now, what theory only, had caused me to presume, was surpassed by the reality; and the new method having proven itself, upon the first trial, to be not only equal, but superior to the old method, adopted by the most skilful physicians. I have not had occasion ever to take a point of support backwards, although that resource may be sometimes very useful, the slightest pressure sufficed.

TREATMENT OF DENTAL PULP PREPARATORY TO PLUGGING.—*Continued.*

BY J. D. WHITE, M. D., DENTIST.

*Of False Toothache.*—Acute sensibility, by striking against the crown of the tooth with an instrument, especially upon the face, and in cases of teeth that have more than one root, striking upon the cusps opposite, and in the direction of the roots separately, will lead to a correct diagnosis, which is inflamed, or which is acutely affected. This precaution should never be omitted, as it is often that only one root of two or more is diseased. A seeming elongation of the tooth from the socket, and more yielding motion than in healthy teeth in the same mouth; these latter symptoms may be more or less marked, proportionately to the *hyperemia* and thickening of the periosteal membranes, and an absence of pain by passing an instrument into the pulp cavity, together with an insensibility to pain by applying cold to the parts.

*Of Sympathetic Toothache.*—This may happen to teeth which are wholly sound; but often they are found to have undergone some morbid change, such as recession of the gum from the neck of the tooth, or irritation of the external membranes, excited by salivary calculi, slight decay of the dentine, erosion, or defective in some way or other. On account of the fact, that pain is so frequently experienced in very sound teeth, and in remote parts, such as in the temples, top of the head, ears, and even the shoulders, it would be unpardonable in an operator to extract an aching tooth, until he had formed his diagnosis from the most positive signs, that the pulp was really exposed, or it was the actual seat of the disease. Upon this point, we have occasion daily to exercise the greatest precaution. I will be pardoned for digressing to relate, at this point, a very remarkable case. Master T., of Chester County, aged fourteen years, was brought to me two years ago, from school, suffering very much at times, and especially at night, with pain in the temples, and in both of the superior front incisors, which were partially decayed, but not more than half way from the surface of the enamel to the pulp cavities. I was requested to destroy the nerves and plug them, or extract; any thing to get rid of the pain. Upon examination of the mouth generally, I discovered that the nerves were exposed in both of the first inferior molares. I directed their extraction, which was acceded to, although they had never been the site of pain, nor had they been suspicioned as being in any way connected with the patient's suffering. The front teeth were plugged without any trouble, and there has not been any of the former symptoms experienced since.

*Treatment of the Dental Pulp.*—The treatment of the exposed pulp has given rise to great difference of sentiment among well-educated dentists; but mainly about the *means* which should be employed for that purpose, agreeing, pretty generally,



that it is bad practice to destroy it entirely. But as well might we expect to procure a healthy function of the *rete-mucosum*, when denuded of the *epidermis*, by substituting one of our own invention, as to procure a healthy function of the pulp, when deprived of its natural protection—the bone. The various modes of treatment, which have for their object the preservation of the pulp, must be of that order. When the pulp becomes exposed by decay, or any other cause, the delicate vessels which ramify upon its surface, are soon ruptured, as well as those which passed into the bone which have been destroyed; they pour out blood and serum, which must have exit through an external opening, or inflammation supervenes, and in a short time establishes a suppurating surface. Any attempt to remove this pathological condition permanently, by medical or mechanical agents, must of necessity prove ineffectual. Notwithstanding, this seems to be the language of reason and experience, it is the object sought to be obtained by most practitioners in Dental Surgery. I would consider this to be an invariable truth, that *so long as the artery continues to convey blood to the pulp, so long will there exist the necessity for an external opening, effusive, or suppurating surface*, unless the inflammation becomes so violent as to produce a slough of the whole pulp.\*

*By Astringents and Capping.*—This is a mode of treatment much extolled by some dentists. Dr. Fitch remarks, "I think the best practice will be, and is, to unite both, as I am in the habit of doing, which is, use the astringents for some time, and then cover the nerve with a cap of lead or gold plate, and complete the filling of the cavity with gold. If this practice be adopted by the dentist, he will often save the tooth." Yet he frankly admits, that, "in many cases it entirely fails." Now, if the cap could not save the tooth before the astringents were applied to the pulp, how could it do so afterwards? The therapist teaches, that the effect of an agent that does not destroy the vitality of a part to which it is applied, is of very short duration. Astringents do not in these cases destroy the vitality of the pulp; then, of course, it may return in a very short time to the same condition in which it was found, before the astringents were used, (nor would the cap be necessary to protect it from pressure,) and give rise to all those dreaded evils which would have followed the application of the cap in the first instance. Professor Harris, of Baltimore, with his usual candor, in speaking of the above method of treatment, says, "It is not recommended as infallible; and while I declare, it has been more successful than any other that I have tried, candor compels me to add, that it has failed in more instances than it has succeeded."

\* I would refer the reader for a more full discussion of the physiological and pathological considerations of the teeth, to an address delivered by the writer, and published in "Stockton's Dental Intelligencer," vol. 2, No. 9, July 1st, 1846.



This is about the success with which the writer has met, in adopting the above plan of treatment, *or any other method which has for its object the preservation of the vitality of the pulp*. I think I hazard nothing in asserting, that, as great a number may be saved without any preparatory treatment whatever, if the pulp be not actually pressed upon by the stopping, as by the above described plan.

*By Cauterization.*—This is a method which has been highly recommended, as a means of destroying the pulp, by some writers, (Kæcker and Maury,) the last cited author, observes, “We have pursued this plan for fifteen years with uniform success.” I believe the reason why Mr. Maury met with so much success is, that in the use of the cautery, in any form, the vitality of the pulp is destroyed, and most generally removed more or less from the tooth, especially when the hot wire is used. Sometimes the cold wire is thrust down the roots of the tooth so far as to be stopped by the diminished size of the canal, and with a rotary motion the blood vessels and nerves are crushed off between the hard instrument and the walls of the canal; and in this way it is, also, removed far down in the root. The more there is removed of the pulp the better; for if only the minute extremity of the artery be left, it will contract and retract with more energy than if it were divided into numerous small branches; it is, also, distributed extensively over and through the pulp, and forms one of its principal constituents. When the pulp is exposed by removing the decay, and no matter how carefully, blood and lymph will ooze out immediately, and continue for an indefinite length of time, defying the permanent effects of astringents; but if it be removed as far down in the roots as a small instrument can well be passed, the bleeding will cease in a few minutes, or hours at the farthest, and it is not of much importance in a pathological point of view, whether this be done by thrusting into the roots a hot or a cold instrument; the pulp is destroyed in either instance, and this is the principal indication to be met in the treatment. We can, and justly too, compare the exposed pulp to a small and extremely vascular tumor, the mere puncture of which would establish an irrepressible hemorrhage; but cut away the whole mass, and one single act of *torsion* upon the main trunk would immediately arrest it. From my experience, the *actual* cautery is the best means of destroying the pulp, where it can be properly applied, as in cases of the roots of the front teeth, where it needs but one or two applications to remove the whole pulp; and I can affirm, with Mr. Maury, that I always succeed in my treatment of a tooth, where I can apply it properly; but I seldom use it now, except in front roots, preparatory to setting teeth on pivots; and the gum does not swell after the operation, as is common, when this method of supplying teeth is resorted to. Inflammation does not often follow the proper application of the

actual cautery, if it is not too large, and applied too often; but if it comes in contact with the walls of the internal cavity, and be retained there for an instant, it will exalt the temperature of the root so much as to inflame the alveolo-dental membranes, (and of course, abscess *may* be the result,) it therefore requires great care in its application. Some merely "*touch lightly*" the pulp, so as to produce an *eschar*; in so doing, the whole pulp in many cases becomes highly inflamed, and causes intense pain, because the eschar or shriveled spot acts to contract the remaining and living part of the pulp, in a similar manner, as if it were grasped with a small pincer, or were pressed upon by a plug; besides, the deadened part acts as a foreign body, and produces inflammation.

If in such cases, the entire pulp be removed or destroyed, the pain ceases. Mr. Bell, of London, deprecates the use of the actual cautery, as well as all corrosive acids. He says: "The first and speedy effect of their application is to produce extreme inflammation in the membrane, (*he means the dental pulp*), with such intense suffering, as to demand the immediate removal of the tooth." He abandons the use of any agents, therefore, which have a tendency to destroy the vitality of the pulp, as improper; and recommends a method of treatment by *stimulants*, which I would be pleased to continue in my next.

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For the Dental News Letter.

MR. EDITOR,—A few days since, a patient for whom I was filling teeth, told me, that after he had arrived at the years of manhood, a horse kicked him in the mouth, and knocked out the right upper central incisor. In about one year afterwards, a new tooth of the *same kind* made its appearance, and continued to grow until it was fully developed. I saw the tooth which had been reproduced, and it was a good match, both in color, shape, and size for the corresponding one on the left. I questioned him closely, and satisfied myself that it was a case of perfect *third* dentition.

In your October number, I observed some remarks in regard to the springing of plates in soldering. My method (which is successful) is this:—I use about one half coarse sand with the plaster, and after giving the teeth and plate a coating of the mixture, I sprinkle on *fine iron wire*, cut into pieces about one-half of an inch in length, all over the plaster and sand, and then apply another coating of the plaster, and continue both applications until I get a sufficient quantity to hold the *work* firmly together. To prevent warping *entirely*, the *whole* should be *thoroughly dried* before it is brought under the blow-pipe. *Then* it should be heated equally all over, before an attempt is made to flow the solder.

In my next whole upper set of teeth, I intend to try Dr. Flagg's lateral suction cavities. I think the idea a good one; but instead

of disturbing the wax impression, I shall mould plaster of Paris on the plaster cast, just where I want it, which I think may be done better in this way, than in removing a part of the wax impression. I would respectfully suggest the idea to Dr. Flagg.

The recommendation of your correspondent, who advises the use of salt water, for the purpose of making plaster harden rapidly, is valuable. It is a fact, and a new idea to myself.

I have never seen "Ambler's Journal of Dental Operations;" but I commenced keeping a *record* about six years since, in the following manner. I will transcribe from *my* journal.

August 2d, 1847, OWEN TAFT, DR.

PAID.	1 gold filling,	\$1 25	Left lateral surface of left upper lateral incisor.
	1 " "	1 50	Median surface of right upper central incisor.
	1 " "	1 50	Left lateral surface of left under lateral incisor.
	Setting tooth on pivot,	2 50	Left under canine.
		<hr/>	
		\$6 75	

I do not, however, write the description in full, but abbreviate, as, for instance, the first line, lft. lat. sur. lft. up. lat. in. *My* object in keeping a record is, to know by reference to the journal, whether I ever performed a certain operation or not, which has failed, and which the individual wishes me to make good, as I warranted the work. This practice of recording, has saved me many dollars, for patients who have had operations performed by different dentists, *sometimes* find themselves mistaken, when they say, that one of my fillings has "come out."

I have written you a rambling sort of a letter, which you may dispose of as you please.

Respectfully yours,

H. S. CHASE, M. D.

Woodstock, Vermont.

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For the Dental News Letter.

MESSRS. JONES, WHITE, & Co.

GENTLEMEN.—In my last communication, I gave the result of my experiments with the amalgam of tin and cadmium up to that date. The result had not been as satisfactory as it seemed to promise in the commencement.

The deep yellow color, I mentioned as having observed in some cases beneath the filling, upon removing it, caused me to fear it would not be durable. Since which time, I have examined some of the early cases in which I employed this filling; some have entirely failed, while others are apparently doing well. In all the cases, the filling upon the surface appears to retain its color. Finding it to differ so much in different cases, I am induced to regard it as at least an uncertain article. I do not feel satisfied to use it, even as an expedient, under such circumstances; having no confidence myself in its durability, I do not even feel justified in recommending its use to the profession.

In regard to its merit, as compared with the various other amalgams, time will be its best test.

My experiments some years ago, with this preparation, were not sufficiently protracted to enable me to discover the phenomenon that I have recently observed; nor were my means of observation so extended, as they have been latterly, from the fact that my experiments were discontinued at that time. I was induced to believe, at a very early stage of my professional career, that all preparations for filling teeth in which mercury entered as a component part, were objectionable, which I believe is the opinion of many of our American dentists; indeed, there has always existed more or less prejudice in the public mind, against mercurial preparations.

It was not until I had been in Europe some time, and had found that the practice of filling teeth with amalgams was so universal, that I was induced to resume my experiments with the preparation. Believing it to be better than those amalgams in general use, I hoped it might prove of some utility to the profession, and also, that humanity at large would be benefitted by it.

Paris, Dec. 11, 1849.

THOS. W. EVANS.

### REMOVAL OF A TUMOR.

The following was handed us by a gentleman—a dentist—copied from a letter written him by a professional friend, and which we give as an instance of the ignorance of many, and an evidence that sometimes, and not unfrequently, the dentist as well as physician, get great credit for doing wonders, when but a simple operation was performed:—

“Your case of vascular tumor, reminds me of one that I removed from an old lady’s mouth, about three years ago, for which I received more credit than I laid claim to. This was owing to the peculiar nervousness of the patient. She had consulted all the physicians, and would-be physicians, besides all the old women of both sexes in the whole neighborhood; and had come to the conclusion, from all she could learn, that it would be “life or death” to attempt its removal. When she called on me, I found a very formidable looking tumor, occupying the position of the left cuspidatus, and projecting out the mouth. It was about the size of a hulled walnut, and of a purplish hue, very sensitive to the touch, and bleeding freely from the least scratch. It had been called all kinds of hard names, from *cancer*, *noli-me-tangere*, *fungus hæmatodes*, &c., &c., down to names not found in the books.

Before I removed it, *she made her will*, deliberately, I was told afterwards, expecting to die under the operation! I removed it with a ligature, for fear of hemorrhage, and afterwards applied the nitrate of silver. I also removed a portion of the fang, which had been left in, in an attempt at extraction, a good many years previously. The parts healed perfectly.

# THE DENTAL NEWS LETTER.

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JANUARY, 1850.

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We feel somewhat gratified at the appearance of this number, and we flatter ourselves that our numerous readers will be pleased also.

We have here, a further discussion on the Warping of Plates, which, from the interest manifested, must soon be a settled matter. Also, an address, which broaches the subject of a Dental College in Philadelphia, (of this, we may say something hereafter,) besides containing some good thoughts on Dental Associations; their usefulness, both to the profession and public—also, an article on a new system of keeping dental records—a continuation of papers on the interesting subject of the Treatment of the Dental Pulp, which increases in interest—a translation from the French, on the Luxation of the Jaw, to the translator of which, we return our thanks, and trust we shall hear from him statedly.

Without particularizing further, we can commend all to the reader, in the full assurance, that they will abundantly repay perusal.

As will be seen, nearly the whole number is original, which flatters the hope, that we shall eventually be able to increase the number of pages of our quarterly.

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The following was designed to accompany Dr. A. C. Castle's communication on "Springing of Plates," published in this number; but came too late, as the first form had gone to press before it was received. We therefore add it here.—ED.

It is one of the vexations in the practice of the dentist, to hear complaints, after having completed a piece of dental mechanism, and placed it in the mouth of the patient, of its metallic or "coppery" taste, which leads to the supposition, that the gold used is of an inferior quality; to obviate this metallic taste to the mechanical denture used, all that is necessary is to boil it in West India sugar and water, for a few minutes; when the sulphate of copper deposited between the teeth and their gold linings, will be entirely removed.

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*New Agents.*—We add to our list of agents the following:—

HAINES & DIETRICH, Druggists, Dayton, Ohio.

J. C. RICHARDS, Druggist, Chambersburg, Pa.

We copy the following editorial remarks from the Dental Recorder, of December, 1849.

*"Premium Teeth.*—We perceive that the premium offered by the Mississippi Valley Association of Dental Surgeons, and announced some time since in the Recorder, has been awarded to Messrs. Jones, White & McCurdy, for the best mineral teeth, one hundred in number.

"These teeth have now been in the market several years, and are so well known and appreciated by dentists, that they need no recommendation from us. These manufacturers have made several improvements in the forms of the various classes of teeth, and manifest a desire to supply all the various shades, patterns, and styles which are needed to match the natural ones."

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As some errors occurred in the article on the "Treatment of the Dental Pulp," published in previous number of the "News Letter," we make the corrections here, that our readers may notice it.

On page second, for "Jourdain," read "Goodsir;" page third, fourteenth line from top, for "alveolar," read "alveolo;" same page, fifteenth line from top, for "membrane," read "membranes;" same page, ninth line from bottom, for "large," read "loose." There are also two sentences italicised, which should not be.

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We have just received a communication from Dr. R. G. Holmes, of Havana, Cuba; but too late for publication.

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*Spencer's New Dental Drill.*—We would call attention to the advertisement of this article on last page of cover.

From the numerous testimonials there given, we should suppose it to be quite as useful as it is ingenious.

We will be happy to supply all orders.

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*New Grinding Apparatus.*—On another page will be found an article copied from the Am. Jour. and Lib. Dent. Science, in reference to Dr. Pratt's "*New Dentists' Lathe*," and can add our testimony to its beauty, usefulness and convenience.

We have just received a supply, which we can sell at the manufacturer's prices.

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*Trunk Chairs.*—We have received some of these chairs from the manufacturer, which, for compactness, have never been equalled. To the traveling dentist, they would be invaluable, as they combine utility with convenience.



*Ashmead & Hurlburts' Gold Foil.*—We are agents for the sale of this Foil, and are ready to supply all orders.

*Palladium.*—We are prepared now to supply orders for this article; having received a lot of the best quality.

### A NEW DENTISTS' LATHE.

We have used the lathe described in the following communication, and find it to work well; indeed, we think it superior to any we have ever seen.—*Balt. Ed.*

DR. HARRIS :

*Dear Sir* :—In compliance with your request, I send a brief description of the lathe which you received a few days since—though, without a drawing and figures of reference, scarcely any idea can be conveyed of its form and appearance. The arbor upon which the grinding-stones are mounted, has firmly placed upon it a heavy fly-wheel, revolving between two columns, so constructed that any wearing of the centre or boxes may immediately be remedied by starting the set-screws attached to each. To one column is appended the crank and driving wheel, which, together with its pinion, is made with diagonal leaves, (technically, spiral-gearing,) giving three revolutions of the fly-wheel to one of the crank, and producing a sufficiently swift, strong and steady motion for any purpose to which such a machine can be applied in our profession.

The base from which the columns spring, is made hollow beneath, for the reception of slips of thick woollen cloth or gum-elastic, previously to securing it upon the table, for the purpose of breaking the vibration of sound, rendering the machine much stiller in motion than it would otherwise be. The rest for the hand is attached to the base, turning upon a centre, and held in position by a binding-screw, nearer or farther from the running arbor, as the nature of the work may require.

Its advantages over a common lathe are—that while its compactness and beauty render it a perfectly appropriate article for the operating room, it will do all, in the mechanical department, which can be done by an ordinary lathe—occupying only a few square inches of space.

Having used it, both in my office and laboratory, I can speak confidently of the amount of work which it will perform. I have taken measures for its registration at Washington, and shall soon be able to furnish them to the profession, of three grades of finish—the running parts substantially the same in all.

I am, respectfully, your ob't servant,

M. PRATT.

# THE DENTAL NEWS LETTER.

Vol. III.

APRIL, 1850.

No. 3.

For the Dental News Letter.

## TUMORS,—SPRINGING OF PLATES.

MESSRS. JONES, WHITE & Co.

*Gentlemen*, If you think the following, showing the importance, when practicable, of removing the causes of tumors in the mouth, in operating for them, is worthy of a place in the News Letter, you may insert it.

About five years ago I was informed, by a medical friend in this vicinity, that there was a negro woman in his neighborhood who was troubled with a tumor in the mouth; and that it had been excised by physicians four times, but was reproduced soon after each operation. After hearing his description of the case, I told him there could be no doubt as to the tumor being caused by a diseased fang of a tooth, and that if it was perfectly removed a permanent cure would be the result. At my request, the woman was sent to my friend's residence. I found the tumor upwards of half an inch in diameter, and occupying the place of the right superior incisors that were lost. Making free incisions, I removed it with the alveolar process around and beneath it, and discovered its cause in about half of the fang of the lateral incisor. There was considerable hemorrhage, which we suppressed by applications of muriated tincture of iron. The operation was quite painful, and the patient declared she would never have it performed again, adding that she might as well die of the tumor as be killed by removing it. The parts soon assumed a healthy condition, and continued so during six months, at the expiration of which time she was removed from the State, and I have not heard from her since.

I will add a line in reference to the springing of plates while soldering. Having occasion to construct two full sets of teeth recently, I adopted the plan proposed by Dr. Castle in the last No. of the News Letter, to prevent the plates from springing. The upper plate of one of them was sprung badly, by the unequal contraction of the plaster, caused by want of proper attention in heating it in a ladle before a common fire. The other, with more care bestowed in its heatings sprung very little, less than I have ever seen in a plate for a full upper set, and not so much as to give me any trouble, and was retained in place by atmospheric pressure as firmly as could be desired.

A. BERRY, D. D. S.

Grand Gulf, Miss, Feb. 23, 1850.

For the Dental News Letter.

## CLEFT PALATE AND ITS TREATMENT,

*And Observations on Artificial Obturators and Palates.*

MESSRS. JONES, WHITE &amp; Co.

*Gentlemen*—I noticed in a former number of your excellent Letter, a request that those who felt disposed to communicate any thing of interest to the profession, should do so by forwarding the same to the Letter for publication. I therefore submit the following to your consideration, and if you deem it of sufficient interest to the profession, you are at liberty to give it an insertion. My object in this communication is not so much instruction, as a brief relation of facts, and reference to one or two cases, wherein uninterrupted cleft palate was involved, and my manner of procedure in the treatment of such cases.

If, perchance, I may throw out any hint that will be of service to any, in the treatment of like cases, or serve to call out an expression of opinion from my professional brethren, I shall be amply rewarded for any trouble I may have been to.

I deem it quite unnecessary here to enter into a detailed account of the origin, history and progress of operations of this kind. I therefore enter at once upon a reference to case 1st.

Mr. R. applied to me for an insertion of a complicated artificial palate, in the summer of 1849. Upon an examination of the mouth, it presented a congenital uninterrupted fissure, commencing with the velum or soft palate, extending through the entire roof of the mouth, inclining to the left of the septim nasi, penetrating through the alveolar arch dividing it between the left central and left lateral incisors.

The lip was also involved, which had been previously operated upon in the usual manner. The central incisor being very defective, and also turned around, presenting its lateral surface anteriorly, and otherwise disfiguring the person, it was thought best to remove it, but before doing so, it was determined to effect, if possible, a union of the alveolar arch, (it being very desirable, in order to procure a basis for the teeth that were to be inserted, viz. left central and lateral incisors,) which was done in the following manner: 1st. The edges of the cleft, on either side, were pared away sufficient to render them quite raw. 2d. An incision was made quite through each edge of the cleft, thus severing a loop of gum on either side, which only remained to be brought together at a point contiguous to the teeth and stitched, taking care not to tear the gum loose at either end of the loop. This done the patient was supplied with a weak solution of nitrate of silver, and a camel's hair pencil, with which he was desired to apply the solution occasionally to the parts operated upon, and the patient was then discharged and desired to return in three days.

3d day. Upon examination, I found the part very much swollen and inflamed, all of which I had anticipated and deemed highly necessary to a successful termination. Adhesion had appeared to have taken place, and nature rapidly finishing up the work. The stitch or ligature was removed, and the patient was discharged for the space of six weeks, with a view of the more permanent union and health of the gum, before the removal of the tooth above mentioned. At the expiration of which time, the tooth was carefully removed, and the patient was discharged for the space of six months. At the expiration of which time, the patient again applied to have the impression taken. At this time the alveolar process was sufficiently absorbed, and the gum presented a healthy appearance. The left lateral incisor, being a healthy tooth, and also very short and conical-shaped, turning its point inwards towards the right central incisor, it was determined to take an impression over the tooth and gum, and strike up a plate over the whole, being careful to make a socket or depression in the plate sufficiently deep for the point of the tooth, that it might not sustain too much pressure. Thus, very much obviating the pressure directly over the suture or newly-formed gum.

The impression was accordingly taken. After the wax was withdrawn from the mouth and immersed in cold water, that part of the wax that pressed up into the nasal cavity, on the remaining part of the fissure, was pared or cut down so as to give an oval and as natural a shape to the mouth as the nature of the case would admit. The plaster was prepared and a cast gotten up in the usual way. The *modus operandi* of casting and constructing artificial obturators and palates, is so well understood by the profession, I deem it supererogatory to describe here.

I intend only to add a few comments relative to the proper construction and application of complicated artificial palates, in order to insure the greatest comfort and convenience to the wearer. Taking it for granted that the gold plate is stamped up, and that it is so formed as not only to cover the fissure in the roof of the mouth, but that it is extended forward over the alveolar arch to receive the teeth, which are to be teeth with artificial gums, the reason of which will appear obvious. This done, it only remains to attach the teeth and clasps; these last mentioned should be so applied as to prevent them from pressing up against the gum during the process of mastication. To secure this, it will only be necessary to make the arms, which extend out from the palate, of sufficient width to set up closely to the neck of the teeth immediately anterior and posterior to the clasped tooth. (I prefer the posterior bicuspid to attach to when practicable; as, also, a double clasp or one clasping both sides of the tooth is preferable, as this will prevent the tooth from being drawn from its proper position.) The posterior edge

of the plate should be turned a little down towards the tongue, and its upper palatine edge made thick and rounding, that the velum may be secured from irritation consequent upon its raising and falling motion. Care should be taken that the clasps be so applied, that they offer no impediment to the removal of the mouth piece at pleasure, as it should be removed nightly; and, also, at any time that mucous or any extraneous matter may be found to lodge upon the palate. Thus rendering it useless to attach a loop on the top of the palate to secure a piece of sponge, (as is recommended by some, an unpleasant and useless appendage at best.) The teeth and clasps being attached, it only remains for the palate and plate to be scraped, filed, stoned and polished, and the work is ready for insertion. It would be well to state here, that from the advanced age of the patient, as well as from the great width of the fissure in the velum, the operation of staphyloraphy was thought inexpedient. The patient was very much improved in his physiognomy from the insertion of the artificial gums and teeth. And in mastication, from the ability it afforded in throwing the food about with the tongue without entering the nasal cavity, also, in deglutition, as he was enabled to press his tongue to the roof of the mouth, and to suck his food, a motion so natural in deglutition.

Case 2. This was also a case of uninterrupted cleft palate. The fissure being very narrow, and the edges approximating at the alveolar border; and also free from any upward inclination. It was closed entirely, by means of granulations, through the alveolar arch and hard palate, as far back in the roof of the mouth as the first molars. The means used to induce granulations was the actual cautery.

The manner of closing an aperture in this way, consists in cauterizing the edges of the cleft, rendering them quite raw, with as little loss of substance as possible, which will always produce inflammation sufficient to insure a supply of granulations. The instrument used for this operation, is simply a small steel instrument flattened at the end, and half round on either side, and very smooth, and turned up at a right angle near the end. The instrument should be heated to redness, and drawn along each edge of the opening sufficient to blister freely, but not to sear, as this would be likely to cause a sloughing of the parts, thus rendering the operation futile. It will now only be necessary to repeat the operation every two months until the aperture is closed. The cautery was only applied twice in this case.

To render the mouth entire, it will require only to bring the cleft edges of the velum together, which will be done by performing the operation of staphyloraphy.

Yours truly,  
C. M. KELSEY, *Dentist.*

For the Dental News Letter.

## ON THE USE OF THE KEY.

MESSRS. JONES, WHITE &amp; M'CURDY:

In consequence of the prevailing prejudice which seems to exist in relation to the use of the key instrument, for the extraction of teeth, I beg leave to make a few remarks. Indeed it is a common remark made in the Southern States, that all, or nearly all, the distinguished dentists of the Northern Cities have abandoned the use of this instrument, and rely indiscriminately upon the forceps. While I am aware of the injury liable to be inflicted from the purchase and power obtained by the application and use of the key, I, for one, look upon it as one of the most useful and efficient instruments known, if properly managed. About four years since, in consequence of some unfavorable results occurring in my own hands from the use of the key, which I then believed might have been avoided by the use of the forceps, I became converted to the indiscriminate use of the latter. I obtained those of various kinds, anatomically constructed for the removal of the different kinds of teeth. Acknowledging that other practitioners may possess more dexterity and tact in the use of the forceps than I do, I must also confess many more unsuccessful attempts have resulted from the use of the forceps, than did when I made a liberal use of the key instrument. I am thoroughly convinced of there being many teeth, from their peculiar articulation and stage of decay, removeable at once, by the proper application of the key; that may require two, three or perhaps half-a-dozen efforts by any other method. It may be urged, that should a tooth give way under the forceps, the fangs may afterwards be separated and extracted. This I admit, but in many instances it is easier said than done; and to say the least, the operation is prolonged and additional pain inflicted upon the patient, which might have been avoided if the proper method had been resorted to in the first instance. It is well known to be very important to effect an extraction by the first attempt, the second being more dreaded. I presume there are not many operators who have not had some of their patients to exclaim, "If it had only come the first time, I would not have cared for it; but now since it is broken down so low, it will be worse than ever." And frequently we cannot obtain a second effort, and rather than submit to a second trial, the patient prefers risking the roots to remain in the jaw, when several days pain and suffering is the result; and so far as the operator is concerned, adds nothing to his reputation. Nor do I believe the dangers of the key, over that of the forceps, so great as has been alleged; especially regarding the extraction of the superior molars. These teeth are known to have three fangs, the inner fang diverging from the others in a line of some fifteen or twenty degrees, con-



sequently the extremities of the fangs, collectively, occupy a much larger space than the mouth of the alveolus, through which they must pass, if extracted. Fractures of the alveolar border, are of very common occurrence from the extraction of these teeth, and I give it as my humble opinion, that the fracture from the action of the key, is liable to be more limited and less extensive than that of the forceps. If the key is applied, the fulcrum resting upon the inner alveolar plate, limits the fracture to that portion immediately pressed upon by it. By the action of the forceps we have no such protection against the extension of fracture. Dr. Fitch, in his Dental Work, relates a case of extraction by the forceps, in which one of the superior molars, together with the alveolar plate of six adjoining teeth, were brought away. As this occurred in the hands of an awkward and unskilful operator, it is not designed to bring it forward as an argument to prove the danger of the forceps, for a different result, no doubt, would have been effected by a more skilful hand. Yet the occurrence plainly indicates the action exerted upon the alveolar plates by the withdrawal of the fangs of a tooth more extended than the aperture through which they are forced to pass, without support on either side to determine or limit the fracture. The fulcrum of the key, in all probability, would have yielded that support, and confined the fracture to the inner process attached to the same tooth.

While speaking thus of the advantages of the key, I am fully convinced of the fact, that by far the greater number of teeth may and should be extracted with the forceps. Yet I venture to assert that many of those dentists, who have abandoned the use of the key, have had cause to regret it in many instances. I will beg leave here to relate a little instance, for which I hope to be excused. A gentleman, some time since, who wished to have the first inferior right molar extracted, being timid and preferring to be put under the influence of chloroform, rode the distance of twenty-eight miles to a physician in Montgomery, Ala., who had acquired some reputation in the administration of this article. Before using the chloroform, he suggested to the Doctor the propriety of using the key instrument so as "to make sure work," as he did not wish a failure. The Doctor replied, that he never used the key, and that it was pronounced unsurgical and unscientific, throughout the length and breadth of the land—that he would *insure* an extraction with the forceps. Accordingly the chloroform was administered, and the Doctor proceeded, (scientifically of course,) the tooth broke under the forceps, smooth and level with the gum; after which both parties felt willing to stop further proceedings; which resulted in several days' suffering from the roots remaining in the jaw. There is little doubt but the key would have effected the object without any difficulty.

When a tooth is presented for extraction, and the key should be most likely to effect the object by the first attempt, *particularly* if, from the nature of things, we anticipate the permission of one trial only, surely proper discretion and propriety would dictate its use.

Excuse this hasty communication.

Yours truly,

THO. J. WARD.

Wetumpka, Ala., February 26th, 1850.

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Communicated for the Dental News Letter

### OBITUARY.

DIED, in the City of New York, on Monday, March 11th, 1850, of Consumption, at his residence in Union Place, Mr. John Burdell, Dentist, in the 44th year of his age.

Mr. Burdell was born in the town of Camden, Oneida County, N. Y., and came to this city in the year 1828, an entire stranger, but from untiring perseverance and industry, together with a practical sense of morality and virtue, he soon claimed the respect of those with whom he became acquainted. After having acquired the requisite preliminary information, he commenced his professional career as a dentist in 1830. He practiced three years in Broadway, after which he removed to Chambers Street, where he remained about twelve years; and while residing in this street, he gained most of his well-deserved reputation.

During the latter years of Mr. Burdell's life, he paid much attention to religious matters, and he died in the firm belief, that the second advent of Christ was near at hand. He entertained peculiar and extraordinary views on various subjects, yet with all his eccentricities, he was honorable and just in all his transactions.

It was the express wish and desire of the deceased, that a post mortem examination should take place, and a report thereon be made. Fourteen hours after death, Drs. Joel Shew and S. Rogers, in the presence of several scientific persons, proceeded to examine the body. The heart, liver, stomach, pancreas, spleen and intestines, appeared perfectly healthy. There was slight indurations near the pyloric orifice, and a partial congestion of the right kidney; but neither of these deviations were sufficient to cause much disturbance. The right lung was adherent at the summit, and half of its upper portion was one tuberculated mass. Near its centre in front was a cicatrix about the size of a half dollar. The left lung was more diseased than the right, and attached near the entire depth to the wall of the thorax, and, with the exception of about one-tenth of the inferior portion, there were tubercles and cavities to such an extent as to render it entirely unfit for use.

The remains of Mr. John Burdell were conveyed to Greenwood Cemetery, where a suitable monument will be erected to his memory.

## POSTAGE ON PAMPHLETS, &amp;c.

For the benefit of those mailing pamphlets, papers, &c. to their friends on the continent, we publish the following:—

*Paris, December 27th, 1849*

MESSRS. JONES, WHITE & Co.

Having received many pamphlets and journals from America, coming through England, upon which letter postage was charged, I refused to receive some. Recently one of the Dental Recorders was charged \$1 75 cents. I did not take it, but called upon the Director General of the French Post Office to learn the cause of this enormous postage. He told me the extra postage was placed upon it in England. I then addressed a note to the Postmaster General at London, desiring an explanation; to which I received the following answer:—

“Sir, in answer to your letter of date—I beg to inform you that pamphlets sent from America through the *United Kingdom* to France, are subject to letter postage.

I am, sir, your obedient servant,

KILLEY.”

I therefore would wish all to know, who have pamphlets, &c. to send their friends upon the continent, that they can send them by the way of Havre, at a reasonable rate.

Yours truly,

THOS. W. EVANS.

15 Rue de la Paix.

## CHLORIDE OF ZINC.

A correspondent makes the following inquiries, which we trust will be answered by some of our readers who have had experience in the use of the article mentioned.

*For the Dental News Letter.*

*Gentlemen:*

I wish some one who has had ample experience with it, would give us an article on the use of chloride of zinc, to destroy nerves in teeth. Mr. Tomes gives it a preference to arsenic; but instead of giving his *modus operandi*, refers to Druitt's Surgery. The edition of Druitt, in my possession, has the following:—

“The chloride of zinc is the most useful of this class of substances.” [Cauterants.] “It was recommended by Mr. James, and has been extensively used by Mr. Tomes in the following manner:—He dilutes it with ten parts of powdered plaster of Paris, and then dips the end of a little roll of softened wax in this powder, and stops it into the tooth.”—Page 395.

Is the admixture of morphia useful in lessening the pain? Is more than one application necessary? How long time is requisite to destroy the nerve? When I destroy nerves to fill teeth, which is seldom, I employ other agents, but I would be pleased to see something on the subject from the pen of some member of the profession well acquainted with its use.

Yours truly,

B.

For the Dental News Letter.

## A NOVEL CASE OF SALIVATION.

MESSRS. JONES, WHITE AND McCURDY :

*Gentlemen*, I am much obliged to you for the receipt of your last number of the "Dental News Letter," and was much interested with the reports of remarkable cases, and other articles contained therein. It is by such efforts to mutually benefit each other, that we are to arrive to a high state of qualification in the Dental Art.

A case has lately come under my observation, which is of interest and novel to me, and I beg leave to present it for your consideration. On the 8th of March, Dr. W., a good practising physician from a neighboring town, called upon me and related the following circumstances, and I will give them in his own words as nearly as I can recollect.

"About three months since, I called upon a dentist to have my teeth cleaned. The dentist was just finishing the cleaning of a lady's teeth, that had been so under the constitutional effects of mercury, as to be severely salivated *monthly*, and all efforts to stop this periodical return of salivation had been ineffectual. The lady was suffering under one of these attacks at this time. When the lady left the dental chair, I took my seat, and the dentist commenced cleaning my teeth *without cleaning his instruments*. In the course of eight or ten days my gums began to swell, were highly inflamed, saliva flowed copiously; my teeth were so loose that it seemed as if I could have taken them all out with my fingers, was quite feverish and had all of the common symptoms of salivation. So severe was the attack, that I was unable to attend to my professional duties for three weeks. Since that time I have had two slight attacks of the same symptoms. I have never taken any calomel myself, nor have I taken any thing else, to my knowledge, that could produce such symptoms."

Had not these statements come from a man whose professional education would enable him to know what he was saying, and his reputation for veracity good, I should not have thought so much of them as I now do. The M. D. was puzzled himself; and when he asked me, "What could have been the cause of my severe salivation?" I could only say, "Don't know, sir." But of the Medical and Dental profession, I wish to make a few inquiries. Could the Doctor have been salivated on the principles of innoculation? The lady that just had her teeth cleaned, was so poisoned with mercury, that she suffered from its constitutional effects monthly, as stated above. Now, could the mercurial virus that collected upon the Dentist's instruments, and without cleaning, have been so introduced into the circulation as to produce salivation? The facts stated in this case furnishes matter for

speculation, and I hope will deduce other facts from the profession, that will throw some light upon this case. One thing, at least, should be learned from it, that dentists should be very careful to *always* thoroughly cleanse their instruments after using them in any person's mouth. I apprehend that there is very little danger of our being too particular and clean in all such operations, and he who would succeed and please his patrons, must keep his office and instruments in a tidy manner.

Yours respectfully,

GEO. H. KEITH, *Surg. Dentist.*

Dover, N. H., March 12, 1850.

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For the Dental News Letter.

*To the Editor of the New York Dental Recorder :*

SIR—In the March issue of your Magazine, under the head of "Enamelled Plates," I notice a communication (anonymous) preceded by an editorial introduction, which, if left unnoticed on my part, would imply a tacit acquiescence to its absurdities.

It becomes, therefore, a duty which I owe to myself, as well as to the professional and unprofessional patrons of my invention, to examine the merits of your correspondent's statement, and to answer the absurdities contained therein, *seriatim*, and I trust that, in common fairness, you will grant space for this communication in your valuable publication.

Your correspondent begins by informing us, that he had given his certificate recommending it, "before he had properly tested it in the mouth." To say the least of this acknowledgment, it conveys but a poor impression of the gentleman's professional conscience; for how could an experienced practitioner *recommend* an article to the world, and to his patients, without first testing the thing properly?

But, with all due deference, I am inclined to doubt the assertion of having a certificate from this source; and this doubt arises solely from the *anonymous* nature of the article. He assumes not even a *nom de guerre*, to be identified, and certainly the certificate which he alludes to could not have been *anonymous*. In the second paragraph he says, "It does not stand," &c. Prof. Chilton's certificate as yet remains uncontradicted by facts, (for anonymous assertions must always go for nothing,) but I am ready to furnish *abundant proofs* that *it does stand the acidity* of the mouth, and is as *tough* and imperishable as an enamel for that purpose can possibly be.

If a plate is *well fitted*, and sufficiently *strong*, it cannot spring. I therefore can only advise *particular attention* to that fact, whenever my enamel is used.

Of the recipe contained in the article in question, I have but a few words to say. It is *not* mine, nor does it in the least resem-

ble mine, but is a prescription, *which, could it be* made up at all, would be most likely to produce the very faults complained of. But I contend that it cannot be made up, and for these simple reasons. The "bone dust" which forms a principal component part of this mysterious concoction, would be utterly destroyed by the intense heat necessary to melt the enamel in its preparation.

Again, the recipe advises us to pour the hot melted ingredients together on a *porcelain slab*. Let us for a moment look at the nature of these ingredients. Three parts are *pulverized flint glass*, and one part is *siler*, and one and an eighth is *bone dust*, the latter of which has, before we arrive at the "pouring out" point, entirely disappeared, and "left not a trace behind," whilst the two former and principal parts assimilate in their nature and qualities so perfectly with the porcelain slab, that no power I am acquainted with could possibly sever the two thus strongly and firmly united. But perhaps the inventor of this remarkable prescription intended to take porcelain slab and all, and make it into impalpable powder; but if so, he should have so stated. One more word about the motive which seems to me to have prompted the article in question. There are such things as *professional jealousies*, hidden under *anonymous* attacks; and it strikes me very forcibly that the recipe given was merely concocted for the purpose of inducing experiments with it which should end, as they *must*, in disappointment. But if my own patent enamel was "good for nothing," what was the object of puzzling the brains of your readers, by giving them a method of making something *acknowledged* to be *worthless*, and that has been abandoned by your correspondent himself; whilst, at the same time, he attempts a slight infringement of my patent, by the assertion that it is "quite *equal* in every respect," and so nearly like mine, that it cannot be distinguished from the patent one.

Your correspondent greatly enlightens the scientific readers of your scientific journal, when he informs them to apply *his* enamel with a piece of *wood*; doubtless he is very desirous of giving a "*cord*" of information.

Like many other new inventions, I do not think that my patent enamel has yet arrived at that high state of perfection which I expect to attain; it is yet susceptible of improvement, and I am still experimenting upon it, in order to make it, in every respect, all that my professional brethren may desire. Whatever new improvements I may make upon it, will, as soon as sufficiently tested, be quickly and cheerfully communicated to my patrons and those to whom I have sold the rights for particular States and localities.

Respectfully, your obedient servant,

M. LEVETT.

No. 628 Broadway, March 30, 1850.



For the Dental News Letter.

## OSSEOUS UNION OF THE TEETH.

*Gentlemen of the Pennsylvania Association of Dental Surgeons :*

I present, for your inspection, an instance of the osseous union of the teeth. Though of no practical importance, apart from the certainty, that the effort to extract one, must cause the loss of both; they are interesting from their rare occurrence; and the odium that has been attempted to be cast by some authors upon those who assert the existence of such cases.

Mr. Fox figures three such; Bell mentions four as having occurred in his practice; Maury figures two; and Dr. Harris mentions two in his own practice, and one in that of Dr. McCabe; other writers mention the existence of such cases; while others have confidently denied their occurrence. Mr. Kœcker says, "In all my practice, I have never been able to obtain ocular demonstration of such fact, or to satisfy myself that there had ever been such a case, and this I say also of all my professional brethren with whom I have had an opportunity to converse on the subject." And he adds, "There is no other way of accounting for such doctrine, than by attributing it to a weak credulity or love of the marvellous, or a desire to impose upon the world."

The specimen now before you was extracted from the superior jaw of a boy in his eighth year; the opposite central and lateral being distinct; and, notwithstanding the assertions of Mr. Kœcker and others, affords ocular demonstration of the osseous union of the fang and neck of a temporary central and lateral incisor, and the fusion of the enamel near the cutting edge. The intermediate portions, though in close proximity, are distinct, as is plainly seen by an examination under a magnifier.

It is evident that the rudimentary pulps of these teeth have been primarily distinct, each inclosed in its proper investing sac, as the crowns are perfectly and distinctly formed, and the enamel deposited on all sides; and, though in close contact, no union has taken place, except in one spot, near the cutting edge. At the moment of extraction the interior partition wall was rather longer, extending down to the neck, but of such extreme thinness as to preclude the supposition that it had ever extended lower, and been absorbed during the absorption of the fang.

The pulps, distinct during the ossification of the crowns, have, at the period of their prolongation to form the fangs, been subjected to a process, the direct opposite of that which takes place in the bicuspid and molars. But one alveolus having been formed, the close contact from confinement in one cavity has caused the absorption of the membrane at the point of contact, and the perfect union of the two pulps in one, upon which the ivory has been deposited to form one fang having a single cavity.

My only apology for occupying your attention with a subject

of such little practical importance is, that as it is an occurrence of extreme rarity, there may be some members who never having had "ocular demonstration of the fact," may have been disposed to attribute the reports of such occurrences to a "desire to shield from deserved censure some awkward attempt at extraction."

Respectfully, SAM'L. JOS. DICKEY.

April 1, 1850.

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For the Dental News Letter.

## TREATMENT OF THE DENTAL PULP PREPARATORY TO PLUGGING—*Continued.*

BY J. D. WHITE, M. D., DENTIST.

STIMULANTS.—"Under favorable circumstances, the sensibility of the membrane may be removed, or its absorption produced, so as to render it capable of receiving the stopping without pain or any subsequent inconvenience. Judging from my own observation, the continual application of a moderate stimulus, such as *alcohol, spirits camphor*, a solution of the nitrate of silver, &c., will be found a more safe, as well as efficacious mode of treatment, than any attempt at destroying the membrane."

He further adds: "It is not, perhaps, easily determined, nor is it of much importance, in what way these applications produce effect; whether by occasioning the actual absorption of that part of the membrane to which they are applied, or by gradually wearing out, as it were, its sensibility; it is sufficient that experience proves them to be efficacious." I think this is a subject on which it is of great importance to know upon what principle a remedy acts. If these applications only wear out the sensibility of the part in which they are in contact, they will often fail upon the same principle as the astringents do; but if they cause the absorption of the whole pulp, they succeed, upon the same principle as that of the cautery properly applied. Exposure to the air and fluids of the mouth for a time, will often produce the same result, namely, "wearing out the sensibility," and absorption of the pulp, or sloughing, without any subsequent inconvenience for a very long period. To prevent the evils which arise from the accumulation of fluids in the pulp cavity, when the functions of the pulp have only been *suspended* for a time by astringents, &c., and the external cavity plugged, some have introduced the practice of penetrating the neck of the tooth with a small drill, where the margin of the gum overlaps the enamel, so that the fluids may have free exit. It is needless to say that this proves the uselessness of the first part of the treatment. Before I discovered that I could destroy the pulp without necessarily rendering the tooth an useless foreign body, and becoming itself a source of irrecoverable irritation, it was my practice to insert a small gold tube in some part of the stopping, believing it to be

preferable to substituting one aperture for another. But this is never required, if the pulp be properly treated; and where alveolar abscess exists, so as to be a serious annoyance to the patient, or injure the parts generally, the tooth should be extracted.

The tubed or drilled tooth is often only of temporary relief, and more frequently goes on to abscess than if it be plugged entirely, I would ask how is it that most teeth and roots that have never been plugged, form abscess when there is every opportunity for the escape of internal fluids? In my humble opinion, and it is in fact my daily experience, that the best plan the operator can adopt to destroy a tooth, is to drill to the nerve cavity, after it has been plugged over the pulp.

**THE CONCENTRATED ACIDS.**—These substances have been highly extolled by some, and deprecated by others. *Arsenious acid* is most commonly employed, and there exists great difference of opinion among dentists in regard to the manner in which it should be used; but I have as yet seen nothing satisfactory, as far as principle is concerned, as to the best mode of administering it. J. J. Greenwood, of New York, employs it thus: "Steep a lock of cotton in essence of peppermint, laudanum or alcohol; then dip a point of the lock in powdered arsenious acid, and apply it in close contact with the pulp."

Dr. Ide, of Ohio, in a communication to the American Journal of Dental Science, gives the following formula, which he has used with great success:

R.—Arsenious Acid, gr. iij.  
Acetate Morphia, gr. ij.  
Misce.

Applied to the pulp on a lock of cotton.

Dr. S. Brown, of New York, in the American Journal of Dental Science, says: "The arsenic should be applied on the extremity of a lock of cotton, steeped in creosote, instead of water. The effect of the creosote is to allay the pain which the arsenic alone would produce when acting on the living nerve." This method of using arsenic is practised by many dentists with whom I am acquainted, and with great success, and less pain to the patient, than is occasioned by it when used alone; but I think the reason assigned by Dr. Brown why it gives less pain when thus combined, is incorrect, and for the following reasons: 1st. The therapist teaches that arsenic destroys the vitality of living tissue, by combining chemically with its constituents. 2dly. The chemist teaches that arsenic is largely dissolved in the essential oils, and sparingly dissolved in water. 3dly. The therapist teaches that if arsenic is not applied to a part in sufficient quantity to destroy vitality speedily, it will be absorbed; and, 4thly. That if it is in a condition to enter into combination rapidly, and in sufficient quantity to produce a speedy slough, it

is not absorbed. Now, creosote dissolves the arsenious acid more freely, perhaps, than any other essential oil; it is, therefore, in a favorable condition to unite speedily and in large quantity with the pulp, and in proportion to the rapidity with which it unites, and destroys vitality, will the pain be diminished. Taking this view of the subject, arsenious acid is, perhaps, the best agent that can be employed for destroying the pulp of a tooth, if it be properly combined with other substances; because it can be applied, in all cases, with equal facility to the back teeth as well as to the front.

A recent writer of this city, (Dr. Goddard,) asserts that "The best plan is to clean out the cavity slightly, and apply to the pulp, as closely as possible, a very small quantity of pure *arsenious acid*. I say pure, because the common arsenic of the shops will not answer; and again, because many dentists are in the habit of mixing it with sulphate of morphia, to diminish pain, than which there cannot be a greater mistake; for the latter article both impedes the escharotic action of the arsenious acid, and increases the pain. The arsenic thus applied, not only destroys the vitality of the pulp, but it combines with the animal matter of the pulp, and forms a compound incapable of putrefaction. (!!!) It causes some pain for three or four hours, when it ceases, and in a day or two the tooth may be plugged." I have tried the above method of using arsenious acid, and sometimes fail to destroy the pulp by one application, but *never* fail to cause great pain. It is well known to dentists, that arsenious acid, when applied alone, will not always destroy the vitality of the nerve, but will give intense pain, and produce acute inflammation, requiring the immediate removal of the tooth; and for the very reason that the arsenic is taken up by the absorbents, and excites inflammation of the whole pulp, without entirely destroying its vitality; and very frequently it is absorbed to such an extent as to produce intense inflammation of the alveolo-dental membranes and alveolar processes. Arsenious acid, applied in *any* form, pure or impure, if it cannot combine in sufficient quantity to produce a speedy slough of the part to which it is applied, will be absorbed, and do great harm, (and this is the reason why its use has been deprecated by the best dentists in this country,) and because it will not always destroy the nerve, but cause intense pain. That pure arsenious acid "combines with the animal matter of the pulp, and forms a compound incapable of putrefaction," will not make it less objectionable than if the pulp be destroyed by any other substance; it will act as a foreign body in the internal cavity, and be a cause of continuing inflammation through the foramen at the end of the root of the tooth, and involve the external membranes. It may combine with any indefinite portion of the pulp; and if we produce the death of a part, it is indispensable to remove such portion, or it will itself

become a cause of inflammation. It is found, by experience, to be so in the treatment of local diseases of other parts of the body, and I think the same facts will apply in the treatment of the pulps of the teeth, no matter what may be the nature of the compound of the dead tissue.

(To be continued )

For the Dental News Letter.

## REPORT OF THE PROCEEDINGS OF THE PENNSYLVANIA SOCIETY OF DENTAL SURGEONS.

A stated meeting of the Society was held February 5th, 1850. MR. C. C. WILLIAMS in the chair.

Minutes of previous meeting were read and adopted.

The Librarian reported that he had subscribed for the "Dental Register of the West;" also, had received a letter from Dr. C. A. Harris, in answer to his inquiries about Am. Jour. and Lib. Dent. Science; after reading which, on motion of Mr. S. S. White, seconded by Dr. E. Parry,

*Resolved*, That the Librarian be authorized to purchase the Am. Jour. and Lib. Dent. Science from its commencement; also, that he be authorized to purchase a book-case or cabinet, in which the books and specimens belonging to the Society may be properly kept; also, that he be privileged to draw on the Treasurer for the amount of funds requisite for the above purchases.

*Resolved*, That we hold an adjourned meeting on Saturday evening, February 9th, 1850.

On motion of Dr. J. D. White—prefaced by some explanatory remarks—and seconded by Dr. E. Parry,

*Resolved*, That a committee be appointed to prepare a brief history of the origin, progress, and objects of this Society. Committee, Drs. J. D. White, Parry, Williams, Beale and Fleming.

After some discussion, a proposition was offered to amend the By-Laws,—lays over till next stated meeting.

The proposition was to reduce the initiation fee from ten dollars to five dollars. The impression being entertained that many worthy persons would then become members, that had kept back in consequence of the large fee demanded; and further, that the object of the Society was not to make money, but to seek mutual improvement.

Mr. S. L. Mintzer exhibited to the Society an original instrument for removing pivot teeth when firmly set, without drawing on the fang, thereby preventing inflammation; on which the Society expressed a favorable opinion.

Oral communication from Dr. J. D. White, on amalgams, detailing three experiments, which resulted unfavorably. Dr. S. T. Beale had been more successful, but would not recommend a

beginner to use it; nor should it be used without very great discrimination and caution.

Messrs. S. J. Dickey and Chas. Moore were appointed to deliver essays at next stated meeting.

An adjourned meeting of the Society was held Feb. 9, 1850.

The Examining Committee reported favorably of the following gentlemen, and recommended them for membership, Dr. C. A. Du Bouchet, T. L. Buckingham and M. Depuy.

A very simple but useful contrivance, in the shape of an articulator, from Mr. T. W. Evans, of Paris, was now presented to the association; which was accepted, and the thanks of the Society tendered him for his donation.

On motion, it was resolved, that a committee be appointed to take into consideration the propriety of establishing a Dental College in Philadelphia; and if, in their judgment, they shall think favorably of the project, that they shall proceed to draft an application to the Legislature for a charter, and report at next meeting.

This resolution was defended in an able argument by Dr. J. D. White, showing the usefulness of such an institution, and instancing the great amount of bad dentistry now performed, and which, by this means, could be to some extent corrected; as a diploma would give standing and a guarantee for ability; because none but those abundantly worthy would receive a diploma.

A stated meeting of the Society was held April 2d. President in the chair.

Examining Committee recommended Mr. A. B. Robbins, of Meadville, Pa., for membership.

Committee on College reported a petition and charter for the establishment of a Dental College at Philadelphia, and ask that the Society take some action on them. They offered the following:—

*Resolved*, That the members of the Society sign the petition, and that copies be sent to the Legislature of the State. Which resolution was adopted, and the committee instructed to proceed in getting a charter; they to be the corporate body.

Librarian reported that he had purchased a book-case, the whole of the "Am. Jour. and Lib. Dent. Science," and subscribed for the "Dental Register of the West." Report accepted.

The resolution offered at last stated meeting in reference to the reduction of the initiation fee, was taken up and discussed at some length, when, on motion of S. L. Mintzer, it was laid over till next meeting.

The following gentlemen were unanimously elected members—Dr. C. A. Du Bouchet, T. L. Buckingham and M. Depuy.

Mr. M. J. Gallagher, of Wilmington, Del., presented to the Society, through Dr. J. D. White, his original articulator, with a



letter of explanation, which was read; both accepted, and a vote of thanks returned.

Jones, White & Co. presented the Society a collection of minerals, which was accepted with the thanks of the Society.

Mr. Van Osten, a student in dentistry, presented a specimen of teeth made forty years ago from the sea-horse tooth; accepted with thanks.

A letter from Dr. Jas. Parry was read, explaining his absence.

A communication from Mr. S. J. Dickey,\* which accompanied a specimen of osseous union of the teeth, was read and accepted.

On motion, adjourned to meet the 1st Tuesday in June.

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For the Dental News Letter.

## PROCEEDINGS OF THE SOCIETY OF THE ALUMNI OF THE BALTIMORE COLLEGE OF DENTAL SURGERY.

*At their Second Annual Meeting, March 24th-27th, 1850.*

The Society met on Wednesday evening, at 7½ P. M., in the hall of the College building, to listen to the regular annual address, from Dr. E. Townsend, of Philadelphia.

No abstract or remark of ours can do justice to this chaste and eloquent effort of our distinguished townsman; and we are the more willingly silent on the present occasion, as we learn that the address is shortly to be laid before the profession. The true character, position and dignity of Dental Surgery were so beautifully set forth, and the means on the part of its votaries whereby this position was to be maintained, so clearly expressed, that every dentist present, whilst interested and instructed, must have felt at the same time proud of his calling.

It was much to be regretted that, in consequence of the extreme inclemency of the weather, so many of our Baltimore friends were deprived the pleasure of hearing this masterly oration.

*Thursday, 3 P. M.*—The Society was called to order, Dr. W. Colburn in the chair, and proceeded, after the proceedings of the last meeting were read by the Recording Secretary, to the transaction of the regular business, in the order as laid down in Art. IV., By-Laws.

A Committee of Arrangements was appointed by the chair, consisting of Drs. P. H. Austen, L. S. Burrige, J. Cherry.

The following resolutions were then offered and adopted by the Society.

1. *Resolved*, That the Treasurer of this Society be instructed to call upon delinquent members for the payment of their dues.

2. *Resolved*, That all committees appointed by this Society to

\* The communication will be found in this number of the "News Letter."—Ed.

prepare any paper, or report upon any subject connected with dental science, shall consist of but one member; and that Art. IX. Sec. 2, By-Laws, be thus amended.

3. *Resolved*, As an amendment to Art. VII., Constitution, that the annual meeting of the Society be held at such time during the week preceding the annual commencement of the Baltimore College of Dental Surgery, as the Secretary, with the advice of the President, shall, on the first of January, deem most suitable.

4. *Resolved*, That in event of the resignation or death of any officer or member of committee, it shall be the duty of the Corresponding Secretary to report the same to the President, who shall have authority to fill the vacancy, until the time of the next annual meeting.

5. *Resolved*, That the thanks of this Society be tendered to Dr. E. Townsend, for the very eloquent address delivered before them on last evening, and that a committee of two be appointed by the chair, to wait upon Dr. Townsend, and request a copy of the same for publication.

Drs. L. S. Burrige and M. A. Hopkinson were appointed by the chair to wait upon Dr. Townsend.

6. *Resolved*, That the thanks of this Society be voted to the Faculty of the Baltimore Dental College, for the use of the rooms so kindly offered to them.

7. *Resolved*, As an amendment to the 2d Sec. Art. III., Constitution, that the under-graduate members of this Society be eligible to the duty of preparing such papers and reports as may be appointed by the Society.

8. *Resolved*, That the Corresponding Secretary be empowered to enrol, as members of this Society, any graduate of the Baltimore College, who shall apply to him for admission, upon payment of the initiatory fee of \$3 to the Treasurer.

The following gentlemen, under-graduate members of the Baltimore College, were then proposed as active members, and unanimously elected: Mr. F. P. Abbot, of Mass., and Mr. Randolph Walton, of Annapolis, Md.

Dr. Chas. G. Davis made application for active membership, and was unanimously elected.

Drs. Cone, Austen and Burrige then proposed the following gentlemen as honorary members of the Society: Amos Westcott, Syracuse, N. Y.; Levi S. Parmly, New Orleans; Dr. Cleveland, Charleston, S. C.; Wm. H. Dwinelle, Cazenovia, N. Y.; T. W. Evans, Paris; James Robinson, London.

Reports of committees being then in order, the chairman of the Committee for Selection of Questions for Scientific Investigation presented five questions, from which the Society made choice of the three following:

1. The comparative merits of single teeth and blocks, with the best method of attaching the latter.

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1. The comparative merits of single teeth and blocks, with the best method of attaching the latter.

2. The different forms of suction plates—their merits, relative and absolute.

3. When and where is the extraction of teeth admissible in the correction of irregularity, and in crowded dentures?

Dr. Austen, chairman of Committee on Mechanical Dentistry, read a communication from Dr. J. U. L. Feemster, Va., member of said committee. He then stated that with the exception of this letter, he had received no material from others, from which to frame a report; that several subjects of interest which he was desirous of laying before the Society, demanded from him further experiment, which, in the ensuing summer, he should have leisure to make. He therefore begged leave to report progress. Dr. A. stated that he would either prepare said report in time for publication in the July No. of the American Journal, or present it at the next annual meeting, as the Society might determine. The Society called for the report at the next meeting, and continued the committee.

Reports from officers being in order, the report of the Treasurer, Dr. C. O. Cone, was presented, showing a balance in the treasury of \$6 55. The account was duly audited, and the report accepted.

An address was then read before the Society by Dr. Austen, from Dr. James Robinson, of London, who had intended being present and delivering the same in person, but was, by unavoidable circumstances, detained. The subject of the address was, The State of the Dental Profession in England. The address was one of great interest, but our limits will not permit us to enter into its merits. It is, we believe, about to be published in the American Journal.

Immediately after the address, the following resolution was offered and adopted:

*Resolved*, That this Society, through their Corresponding Secretary, express to Dr. James Robinson the pleasure with which they have just listened to his interesting address, and request of him the privilege of publishing the same in the American Journal of Dental Science.

The Society then proceeded to the election of officers for the ensuing year. The following were elected:

J. H. A. Fehr, President; Chas. W. Ballard, Vice President; C. O. Cone, Treasurer; P. H. Austen, Corresponding Secretary; H. Colburn, Recording Secretary. Standing Committee, C. O. Cone; Committee on Dental Practice, C. W. Ballard; Committee on Mechanical Dentistry, P. H. Austen.

# THE DENTAL NEWS LETTER.

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APRIL, 1850.

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Recently we paid a visit to Baltimore, and found the American Society of Dental Surgeons in session, in the Baltimore Dental College. It was an adjourned meeting, and was attended by gentlemen from New Orleans, Charleston, Wheeling, Washington, New York City and State, Philadelphia, &c., beside the members residing in Baltimore. This manifests the right spirit. For when men will come for this purpose the distance some of these have, it proves, conclusively, that they have the advancement of the profession and the Society at heart, and are willing to make some sacrifice of time and money for the accomplishment of that object.

We were much interested with a lengthy biography of Dr. Nasmyth, of London, read by Dr. C. A. Harris, and which was prefaced by some very feeling extempore remarks in reference to the decease of several members of the profession. We heard read, also, an able and appropriate paper, on the subject of the Amalgam controversy, by Dr. E. Townsend, of Philadelphia, which was referred to a committee, who are to report at the next meeting of the Society; when, we trust, the address and committee's report will be published. The meeting was an interesting one.

We were not present at the Commencement of the College, but learned that there were nine graduates, from a class of some thirty-one.

A report of the proceedings of the Alumni attached to the Baltimore College, will be found in our pages.

This number of the News Letter, as will be seen, is principally made up with original matter. We have had to lay over some selected articles already in type, to give place to original matter. This is cheering to us, and we trust our correspondents will not slacken in their efforts to contribute to the literature of their profession, and thus give us an opportunity to gratify our desire to enlarge the News Letter.

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## KEEN RETORT.

The following very laughable and *pointed* reply, we cut from a political paper:

“A dentist while addressing a political meeting in Michigan, was assailed by a loafer of the opposite party with ‘Doctor, how much do you charge for pulling a tooth?’ To which the dentist replied, ‘I’ll pull all of your *teeth* for a shilling, and your nose *gratis*.’”



We would have been pleased to have devoted some space to the evidence of Dr. Keep, on the recent trial of Professor Webster for the murder of Dr. Parkman, and particularly on that point which relates to the identification of the teeth. His testimony furnishes, to our mind, the strongest evidence of the death of Dr. P. that was brought out.

We can never doubt the fact that a manufacturer of *blocks* could easily identify his own work, no matter what heat they had been subjected to, short of fusion, and provided a sufficiently large piece was left to give the characteristics, or his manner or style of carving. This, with Dr. K.'s positive and direct testimony, leaves us no room to doubt the truth and force of the evidence; but all must have read it, and our limits will not allow us to say more now, further than to call the attention of the profession to the importance their occupation assumes in this case, and the probable necessity of being prepared for a like case, by preserving their plaster casts properly labeled, &c., and making note of the peculiarities in the various cases which they supply, in a book suitable for the purpose.

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*Antiquity of the Dental Art.*—In looking over a pamphlet entitled "Ancient America," we found the following little article which struck us as being interesting and important, as showing the antiquity of the dental art.

"Dr. Dickeson, of Mississippi, has been penetrating a large number of mounds in the south-western States. In these he found interesting relics, such as mica mirrors, silver and copper ornaments, beads of jasper, agate, &c., similar to those found in Mexico. Several pearls of great beauty and lustre, an inch in diameter, have been found. By an examination of skulls, Dr. Dickeson discovered that *dentistry had been extensively practised by this ancient people, as plugging the teeth, and inserting artificial ones was common.*"

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We add the following to our list of Agents. Dentists in their respective neighborhoods can now supply themselves more expeditiously than heretofore.

G. & J. G. Hill,	Druggists,	Detroit, Michigan.
Geo. Coster & Co.,	"	Mobile, Ala.
Clark & Allison,	"	New Orleans, La.
Chas. A. Heinitsh,	"	Lancaster, Pa.
Dr. E. L. Strohecker,	"	Macon, Ga.
Dr. J. E. Cleveland,	"	Charleston, S. C.
Norton & Whitney,	"	Lexington, Ky.
Aaron Stretch,	"	Nashville, Tenn.
W. M. Hughes,	"	Madison, Ind.
F. H. Clark & Co.,	Jewellers,	Memphis, Tenn.
C. A. Dickinson,	"	Richmond, Ind.

## GOLD MEDAL.



In the October number of the News Letter we stated, that we had been informed by a friend, that the Mississippi Valley Association of Dental Surgeons had awarded us a "*Twenty dollar Gold Medal*," for one hundred of the best teeth, and we have now to acknowledge the reception of the medal, which for beauty of style and workmanship, cannot be surpassed. We had some misgivings, that "way out West" they could not do such things as neatly as we could here, but in this we have been agreeably disappointed, and now promise, that hereafter, we will never accuse them of a want of taste or ability in getting up a neat medal, at least.

We now give the letter accompanying the medal.

CINCINNATI, March 4, 1850.

*Gentlemen:*—Having been appointed as a committee, at the annual meeting last September, to have the accompanying medal prepared for you, I had hoped to have been able to have forwarded it to you long since, but have been disappointed. I now take pleasure in sending it, hoping it will meet with your approbation.

Yours respectfully,

CHARLES BONSALE.

TO JONES, WHITE & MCCURDY.

We have had wood cuts prepared of both faces of the medal, and thus give our readers an opportunity of judging its size and style.

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*A Beautiful Present.*—While upon the subject of medals, we must say something of a splendid present in the shape of a **BREASTPIN**, containing eleven diamonds, and in the centre a small porcelain tooth, all mounted in twenty carat gold, and sent us by a gentleman whom we have never had the pleasure of seeing, but who has been using our teeth for years. Without his authority or knowledge, and knowing it was not written for publication, we trust he will pardon us for the liberty we have taken in

publishing the very complimentary letter which accompanied his beautiful and greatly prized "token of esteem."

ST. LOUIS, January, 1850.

MESSRS. JONES, WHITE & McCURDY.

*Gentlemen*:—Permit me to present to you this small token of my esteem, generated by feelings of obligation, which I, as a member of the dental profession, have felt toward the manufacturers of the most artistic and useful artificial teeth I have ever seen or used. In using teeth of your make, I have been saved *much* labor, and I have had the satisfaction of supplying my patients with pieces that looked like teeth, and not like kernels of southern corn strung on a string. Accept, also, my thanks and best wishes for your success and abundant patronage, of which I feel sure, for it is certain that your teeth need only to be brought under the notice of the dentist, whose eye is educated, to ensure a patron.

I am, gentlemen, with much respect,  
Yours sincerely, JOHN S. CLARK.

*Steel Foil Scissors*.—We have imported a beautiful article of this kind, in consequence of the demand for them. Many objected to the kind usually made with pearl handles, in consequence of their extreme liability to break, and desiring that the handles should be of steel. We are now ready to supply just the article required.

From the Dental Register of the West

### MOULDING.

DR. TAYLOR—I have, for about two years past, made use of an article for moulding, which I consider far superior to any thing we find mentioned in "the books," or by our instructors, for that purpose. It is common Spanish whiting, used dry, or containing no more moisture than it absorbs from the humidity of the atmosphere.

The principal advantage gained by the use of whiting is the *beauty and perfection* of the cast taken from it, which is a desideratum with many operators, particularly in atmospheric pressure sets.

The whiting should be made free from lumps, (it requires no other preparation,) and used the same as sand.

If you consider the above information of any importance to the Dental profession—if it will add one item to the many facilities which we possess more than our fathers did—or if it will make any advancement toward that professional perfection at which every dentist ought to aim, you are at liberty to make such use of it as will best subserve these important interests.

E. S. HOLMES.

# THE DENTAL NEWS LETTER.

Vol. III.

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No. 4.

For the Dental News Letter.

## TREATMENT OF DENTAL PULP PREPARATORY TO PLUGGING.—*Continued.*

BY J. D. WHITE, M. D., DENTIST.

Arsenious acid *is*, undoubtedly, the *destroying agent* in every form in which it can be used. A great many dentists are now using it, combined with morphia, and with success. I cannot understand why the preparations of morphia will not obtund, to some extent, sensibility in the pulp of a tooth. They are applied with that view, to other parts of the body,\* and not without good effect. I know well that the sulphate of morphia, alone will suspend pain in the pulp, when it only arises from inflammation of that substance. I employ it constantly for that purpose, and sometimes combined with tannic acid; and always succeed in stopping the pain, even though it has been occasioned by the application of arsenious acid alone, if the external membranes are not much involved.

*Arsenious Acid, Morphia, and Kreosote.*—This is, perhaps, the best form of using arsenic that has yet been devised. I have not seen it spoken of by any authors. I have been using it thus since 1840 as a general substance for destroying the pulp, but I have tried arsenic in various other forms, as well as many other substances, before and since that period. There is no difference, in this form, in the rapidity with which it unites with the pulp, than when the kreosote only is properly combined with it; but the morphia will exert its narcotic influence, and lessen the pain; an effect which we do not often obtain with kreosote. The kreosote cannot be regarded in any other light than as a mere vehicle for the proper application of the arsenic.

R. Arsenious acid, - - - gr. xxx.  
Morphia sulphas, - - - gr. xx.  
Kreosote, q. s.  
Misce.

Put the arsenious acid and kreosote in a glazed mortar, and grind until the arsenic becomes impalpable; then add the sulph. of morphia, and continue the trituration for some time, with a view

\*“They are applicable to all cases where the object is to relieve pain, or allay nervous irritation in any shape.”—*U. S. Dispensatory.*

of completely incorporating both ingredients, and adding a little kreosote to keep the mass of about the consistency of thick cream. Prepared in this way, the arsenic is in a better condition to unite speedily with the pulp than the mere dry powder of arsenic, on account of the kreosote holding a large quantity of it in solution; and it becomes more minutely subdivided when triturated in an oily substance than in the dry state.

*Manner of Applying the Paste.*—In the application of this paste, or in fact of any substance for the treatment of the pulp, great care should be taken to free the cavity of decay of all foreign substances, as well as the decay immediately over the pulp cavity, so as to be able to place the paste in immediate contact with the exposed pulp. This precaution should never be neglected; because, if the pulp is inflamed at the time the application is made, the simple removal of the decay will excite bleeding, and relieve, or wholly stop, the pain; indeed, it is very frequently that nothing more is required to cure a bad attack of toothache. And again: if it be not inflamed at the time, the action of the destroying agent will excite the determination of blood to the pulp, and by being thus congested in a shut cavity, and incapable of expanding or bleeding, will produce great pain, wholly independent of the escharotic agent; whilst, on the other hand, the patient would only experience a gnawing sensation, or dumb pain. A pledget of cotton, about the size of a small pin's head, steeped in the paste, is sufficient. If the pulp bleed when the cavity is cleansed, we must wait until the bleeding subsides before we apply it, as it would dilute the preparation and diminish its action. The cavity may then be filled with cotton, and left to remain in from ten to sixteen hours. If it be in the case of a young patient, the bone will absorb a sufficient quantity of the arsenic to inflame the alveolo-dental membranes; and of course it should be removed, in such cases, in a shorter time than it could be left with safety in the case of an older patient, or a dense and opaque tooth.

I sometimes place a layer of tin foil over the paste after it is introduced, with a view of preventing it from being absorbed by the cotton, especially if it be between two teeth, both of which are decayed, and it is not desirable to destroy the pulp in both. We have seen cases where substances have been placed in one tooth to destroy the pulp, while the adjacent tooth was not decayed to the nerve; and the cotton absorbing the poison, it would pass over to the adjacent tooth, and permeate the thin stratum of bone protecting the pulp, and either inflame or destroy it, and give both patient and operator great trouble.

Softened beeswax and pastes of various kinds are objectionable, because they will not allow the air to escape from the cavity while packing them in, and therefore, by forcing a column of air against the pulp, it induces pain. Where the cavity cannot be

sufficiently well shaped to allow of the secure package of the cotton, or where there is no adjacent tooth to support it, as on the labial surfaces of the teeth for instance, I am in the habit of placing a roll of cotton over the cavity, and then throwing a ligature around the tooth to secure it.

An escharotic ought never to be applied in the after part of the day, or at night, to destroy the dental pulp, and especially in patients of a high nervo-sanguine temperament; because teeth are more liable to pain at night, from the increase of the nervous susceptibilities and the febrile exacerbation and determination of blood to the head and face, that all are more or less liable to as night approaches. I very frequently narcotize the pulp, by applying morphia for a day or two before the application of the paste, if we fear its giving pain, and apply the escharotic in the morning. By this method, the most happy results have been produced in the treatment of the most nervous patients. Some of the reasons why I prefer using the arsenious paste are, 1st. It destroys the vitality of the pulp in a shorter time and with less severe pain than in any other form in which I have used it. 2d. It less frequently causes inflammation of the external membranes than when applied alone, from the well-known principle that the more speedily it unites with and produces the death of a part, the less extensively will it be absorbed; and, 3d. It produces a more extensive and perfect slough of the pulp, and of course favors its removal more effectually from the roots without pain. It is upon this latter effect that the preservation of the tooth mainly depends; and it would seem that dentists have pretty generally overlooked this necessity, under a false idea that the tooth is thereby rendered inevitably a foreign body, and consequently becomes itself a cause of exciting inflammation. I consider the actual cautery as preferable for removing the pulp, where it can be applied, to the use of acids, and often use it in treating the pulp, preparatory to setting pivot teeth.

*Manner of Removing the Pulp.*—After the paste has been in, the allotted time, see the patient, and remove it. Then, with a small pointed instrument, wound the pulp to excite bleeding, to relieve the tension of the blood-vessels of the apex of the fang, and prevent the pain that would otherwise be produced by enlarging the orifice leading from the cavity of decay to the pulp cavity. Now open the orifice of the internal cavity well, quite as large as the largest part of the pulp cavity; then, with an annealed wire fitted into an ordinary drillstock for the purpose, and bent to suit, and *barbed* with a sharp knife, so that when it is passed into the canal alongside of the pulp, this sharp, jagged instrument will lay hold of the mass of the pulp, and with a sudden jerk very probably the whole pulp will be extracted, or at least it will break off at the line of demarcation between the living and dead parts. If this barbed instrument be as pointed as possible,



it will pierce the pulp or pass along the canal to any desirable extent, without pushing the pulp or the contents of the canal of the root, before it: and again, if the sharp teeth lay backwards, or towards the shaft of the instrument, they will not produce much obstruction in entering, but on withdrawing the instrument they will inevitably bring with it the contents of the canal or cavity. If this instrument be filed to a flat square, and the edges barbed, they will be sharper than if the teeth were cut on a round or flat surface. To pass deep into the root through a winding cavity, where a steel instrument cannot well be used, a common quill of hard texture, prepared like the steel instrument, will be useful, as it is more flexible. We use the quill entirely for mopping out the root, in washing away the blood, and putting any substance deep into the root. I do not often apply the paste a second time, especially if the pulp is destroyed to a considerable extent by the first application, but apply a small quantity of *caustic potash* or *chloride of zinc*, as either of those substances will produce a speedy slough, in this condition of the pulp, without pain, whilst if either be applied to the pulp in a healthy state, they will excite intense pain, and not destroy the pulp for any depth. I also use *burnt alum*, *tannic acid*, or *nitrate of silver*, in solution, or in the stick, as the circumstances of the case and the locality of the tooth would allow; as, for instance, it would be improper to use nitrate of silver in a front tooth, as it would, without great care, discolor it. Sometimes, if all the pulp cannot be taken away, by waiting a few days, the balance will slough, and it can be removed with facility. It is yet a question with me whether the pulp should be removed to the very apex of the root, or only within a short distance of it. We know well that the only evil of removing the pulp is the wounding or communicating inflammation to the external membranes, and it seems to me that if we remove the pulp to the end of the root, and there is any irritability in the constitution against us, it must act upon the external membranes at once; and that approaching so close to the apex, we cannot avoid exciting some irritation, whilst if we leave a small portion of the blood-vessels remain, say an eighth or quarter of an inch, as the canal in the root is wide or narrow, as a kind of neutral ground to work on, in this way we would not be coming close enough to the external membranes to produce irritation, and there would not be sufficient of the fragments remaining to do harm. Neither do I see why we could not get rid of so small an amount by absorption, as the external membranes could do without it, in the same way that we get rid of the small shreds of blood-vessels elsewhere under similar circumstances. Although, in removing several nerves in the same mouth, I have had trouble with those that have been partially removed, and not with those that had been entirely, and vice versa; still I give the preference to leaving some neutral ground. Yet I do

not leave sufficient to invite an afflux of blood to the parts, or any part that can be taken away with the smallest flexible probe.

*Plugging the canal of the root or nerve cavity.*—I do not think it prudent to plug the root as soon as the nerve is removed, on account of the bleeding that generally follows, even though there be no bleeding; because it is evident that the blood that returned through the pulp must now return by anastomosing vessels, and which will give more or less turgescence to the blood-vessels of the root, and become augmented by the pressure of plugging. It is therefore important to wait for several days, as the case may be; in the meantime see the patient, in order to remove the clot of blood that forms in the cavity until the bleeding ceases; and then at last, fill the whole root with a tent of cotton imbued with alum-water, for a day or two, upon the withdrawal of which, if there be no bleeding, the root may be filled with gold. I *never* use tin in the root of a tooth: some I fill in three days, and some in two weeks, depending upon the condition of the external membranes. I take a piece of gold leaf, cut it triangular, (No 6 will do, but 15 is better,) and beginning at one corner, roll it into a pointed roll, and as hard as possible; this will make a flexible gold wire, which can be passed, if necessary, to the apex of the root. If it be too pointed or sharp, cut it off with the scissors at such point as to be thick enough to choke the cavity before it gets to the fragments of remaining blood vessels, or going through the foramen at the apex of the root, for it would in either case bring on inflammation. Then follow this with a small annealed plugger, having a great number to fit different localities, of higher or lower temper, as may be desired, the larger ones to go far into the root, to be fitted extemporaneously, and used until a harder and stronger one will apply, making still greater and greater pressure as we near the neck of the tooth, when a very strong instrument must be used, as the plug at this point must be very hard, to prevent the tooth from becoming discolored, it ought to be hard to the end of the root; but I know of no way of getting an instrument in, strong enough to make it very hard in some cases. Now the first of these pluggers must be rather soft; still, not as soft as steel can be, and rubbed with a burnisher towards their points, as that process will lay a kind of burr towards the points, and when used will carry the gold in, and not withdraw it on removing the instrument. It will also harden those sufficiently that are to be used first, without plunging them into water. When the root of the tooth is filled level with the floor of the cavity of decay, I am in the habit of burnishing the surface of the plug, to shut off the possibility of dampness escaping into the external plug. It is obvious that if the natural cavity of the tooth be firmly plugged with gold, the tooth will be in a better state of preservation than if the cavity be open or plugged with any other substance, as it will effectually prevent

the dampness, pus, air, &c., from acting on the walls of the cavity. I need not say what nastiness gets into that cavity, as once cleaning it out when the tooth is in a diseased condition will explain it much better than I can. Again, as the tubuli of the body of the tooth radiate from the pulp cavity to its periphery, an impervious plug will shut off the discoloration so much complained of when the pulp is destroyed, as all that so much-dreaded "blueness," "purple," &c., is from infiltration of the tooth by the contents of the pulp cavity. In this way, the whole body and root is saturated by the morbid fluids bathing that cavity, until the whole tooth is dead. I never think of a tooth becoming discolored, if my patient will give it as much attention as I propose to give. It therefore never happens, except by carelessness on my part, my patients', or imperfect operations.

I copy the following from my Thesis paper, written in the winter of 1843-44. It may not be uninteresting to give a list of cases which I kept during April and May of 1842. In one hundred successive cases, the pulps were destroyed in eighty-four without pain; the remaining number, sixteen, gave pain, the average duration of which was one hour. The pain was most severe, and of greatest duration, in patients of a strong nervo-sanguine temperament; but even in those cases, if the pulp had been subject to frequent attacks of inflammation, it rarely gave pain when the paste was applied. Again, patients of scrofulous diathesis rarely suffered pain, whether the pulp had been previously subject to inflammation or not. I have extracted six of the above one hundred cases since the spring of 1842, for alveolar abscess, (time about twenty-two months,) but I was not able to trace the whole number any further to obtain the ratio. Some, however, are still good, (1850,) and those that have been lost had not been plugged well in the roots. I never could succeed in saving teeth satisfactorily by plugging over the nerves, either by "caps," made according to special patterns, or methods of plugging, or interposition of non-conductors or non-irritating substances, such as *asbestos*, *charcoal*, *cotton*, etc., etc. I have kept a diary of cases, which will be useful to refer to, as well for my own practice as for others. The last special list was kept during October and November, 1849, of seventy cases that had been plugged over the nerves, and numbers of them by some of the most careful operators in Philadelphia, as well as in neighboring cities; none of them have been extracted up to this time, after filling in the roots, to my knowledge. Nearly all of those cases were giving pain at the time, and some of them had gone on to alveolar abscess, and were in a very unhealthy state. But this would lead to the consideration of alveolar abscess, which was not contemplated in the limits of these papers, but which, if time can be spared, and health permit, I will take up at some future period. I cannot close without acknowledging myself under the

deepest sense of gratitude to the proprietors of the "Dental News Letter" and those other valuable journals that have done me the honor of publishing the above hastily written papers. Though hastily written, they are not hasty conclusions, as I have given them the most deliberate reflection and experiment, and their strict observance lead me daily to the most happy results. My humble exertions have been, and ever shall be, to arrive at the best and most truthful methods of alleviating human suffering, and I would earnestly and respectfully solicit every fellow-laborer in our useful avocation to aid in the elucidation of this intricate subject. He who corrects most of my errors, and teaches me most, does me more service and honor than he who adopts and applauds the result of my labors.

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For the Dental News Letter.

## REPORT OF PROCEEDINGS OF THE PENNSYLVANIA SOCIETY OF DENTAL SURGEONS.

A special meeting of the association was held June 25, 1850. Mr. C. C. Williams president. After the usual preliminary business, the committee to whom was referred Evans' Amalgam, made the following report, which was accepted, and the committee discharged. The resolution which is appended to the report was adopted.

### REPORT OF COMMITTEE ON DR. EVANS' AMALGAM.

To the President and Members of the Pennsylvania Association of Surgeon Dentists :

GENTLEMEN—Your committee, appointed at the stated meeting held on 6th February, 1849, and to which was referred Dr. T. W. Evans' Amalgam, respectfully beg leave to report, that they have attended to that duty, and submit the following conclusions, to which they have arrived, viz:

1st. As to the general question of the use of amalgam, and other compounds of the baser metals and pastes, as a filling for teeth, your committee would not wish to be comprehended as restricting any member of the profession in their occasional use, as directed by the exercise of their deliberate judgment; but as a general substance for filling, would condemn it, and would in any case recommend the observance of great caution. Notwithstanding the violent and much to be deplored dissensions which have existed for the last few years among the most eminent in the whole domain of the profession, still, the subject of these preparations for fillings has received the closest scrutiny, and the most extensive and multiplied experiment, and sufficiently careful to have settled, beyond the question of controversy, the impropriety of uniting any two kinds of metals whatever in the same filling, or the same tooth. Those dissensions have had their beneficial influence, however, in a two-fold light—first, that of directing the

most careful inquiry into a subject of the greatest magnitude to the profession; and secondly, by the publication, through the journals of the country, of the separate views of the different observers, have also contributed to enlighten the reading public. And as far as your committee are able to judge, the most intelligent class of the community receive with suspicion any compounded material for filling teeth, and mostly refuse, positively, to submit to its employment. Although your committee were appointed to consider the subject of Evans' Amalgam only, still, as it is so identical with most others that have been, and are still in use, except that it contains *cadmium*, they consider it a fitting occasion to remark upon amalgams and compounds as a general subject, and express their convictions, with a view of settling the matter, as far as those substances are concerned, at once; and moreover, as the most objectionable and important ingredient in it is also contained in most others, viz. *mercury*. Now, as to the deleterious influence of mercury on some constitutions, there remains no longer a doubt, even though received into the system by the slow process of the decomposition of a plug or a number of plugs in the teeth of a patient. In fact, cases are constantly coming to light, through the most respectable sources, sustaining this conclusion, and as Evans' Amalgam, as well as all others, are destroyed by the action of the acidulated secretions of the mouth, in some or most patients, it loses its value as a safe material for filling teeth. Yet your committee are aware that some patients do not present the appearance of suffering from its use; still the operator cannot know, by any external or other signs, in which or what kind of constitution or temperament, it may with safety be employed.

2dly. With regard to the merits of Evans' Amalgam. Your committee have been anticipated by the author, in a communication to the proprietors of the "Dental News Letter," under date Paris, Dec. 11, 1849, in which he holds the following language:—"Finding it to differ so much in different cases, I am induced to regard it as at best an uncertain article. I do not feel satisfied to use it, even as an expedient, under such circumstances; having no confidence myself in its durability, I do not feel justified in recommending its use to the profession." Notwithstanding this renouncement by the author, he makes use of the following commendatory language in a communication to the proprietors of the journal named above, under date London, April 20, 1849: "The first in the profession in London have pronounced it the very best ever invented. Finding this, I cannot feel myself justified in withholding it from the profession. I propose publishing it freely. I have never had any thing belonging to dental science that I wished to conceal, and this being an article intended to benefit humanity, I therefore wish every one to be the possessor of it. I think it must supplant the many substances which are



used, most of which I cannot but feel are very deleterious; this, I *know*, is not." He further adds a series of reasons why it is superior to any heretofore in use, and claims for it a number of special merits, among which the subjoined are the most important. 1st. "There is in it no ingredient that can possibly render it improper to be employed in the most delicate constitution; it is perfectly harmless, both as it respects the general health and the teeth themselves." 2dly. "Almost *immediately* after introduction into the cavity, it becomes hard, and as it hardens, it *expands*." 3dly. "A cavity filled with this compound is altogether impermeable to the fluids of the mouth, and strong tests have proved its perfect insolubility," and, 4thly, "The most delicate comparison of the weight of the filling at the time of insertion, with its weight after having been in the mouth, proves that it undergoes no change whatever in this respect."

Now, with regard to the first and important merit claimed for it, your committee would dissent in the strongest terms, and it is the first time your committee have heard any one claiming that mercury is not "improper to be employed in the most delicate constitutions, as respects the general health or the teeth themselves."

The citation of the following case will fully illustrate many of its characteristics as a useless substance, and explain nearly all points of objection to it: a lady of twenty-five years of age, high nervo-sanguine temperament, in general good health, teeth much disposed to decay, highly sensitive, and would not hold plugs well, had the second right superior molar plugged on the back part and palatine surface—the plug supplying about two-thirds of the whole substance of the tooth; the nerve was dead in the tooth, and it had been plugged for some time with tin or gold, and answered the purpose of attachment of a partial set of artificial teeth for a long time; it never had been sore in the gum. It was filled with great care, and was understood by the patient as an experiment with a new and highly extolled amalgam. Upon putting the tongue to it there was a very strange sensation—a peculiar, pungent and cold sensation—which was very much increased on putting the band on the tooth. This became a source of considerable annoyance for some weeks, when it diminished by degrees, leaving the tooth sore in the gum, somewhat loose, and with pain and uneasiness all the time; finally, in about three months, the plug commenced crumbling out, and the first sensations passed off—that of cold pungency. The balance of the plug was removed, and presented the appearance of gray ashes, the mercury had been entirely absorbed. There is not the least doubt but that the secretions of the mouth operated to dissolve this plug very rapidly. The adjacent teeth, as well as the plugged one, were quite yellow. The same tooth was plugged with tin in a few days, with a great deal of labor, when none of



these symptoms were experienced, the spunginess of the gums left, and the tooth is firm. Three cases out of four terminated in this way.\* On the other hand, a gentleman fifty years of age, of general good health and good constitution, had the back part of the second inferior molar (nerve dead) plugged, and it comes in partial contact with the food in chewing, does not produce any unpleasant symptoms, but is not as good as gold or tin in the same place, as it wears away very fast. They have all complained of a cold sensation about the teeth plugged with it. Now, under such circumstances, all its "peculiar merits," as to "impermeability," its harmlessness in the most "delicate constitutions," maintaining its specific gravity, etc., etc., fall, with the plugs, *to pieces*. And all that is left for the committee to say is, to compliment the generous and liberal feeling which stimulated the inventor to lay it freely before the public. If all were to appreciate the lesson this substance and the inventor's course affords them, there would be many more good things in use, and many more bad ones out of use.

All of which is respectfully submitted.

*Resolved*, That while your committee do not wish to restrict any member of the profession in the use of amalgam, as a temporary filling, knowing that a discerning public will govern him in that respect, as regards its use, to the exclusion of gold,—more than all the laws and resolutions a society could adopt; still, they would recommend the entire abandonment of it as a safe and permanent filling for teeth.

F. REINSTEIN,	} Committee.
C. C. WILLIAMS,	
W. R. WHITE,	
S. L. MINTZER,	
A. R. JOHNSON,	

The committee to whom was referred all specimens of teeth sent for competition for the medal offered by the society, made the following report, which was accepted, and committee continued, to complete the duty of procuring the medal. The resolution annexed to the report was unanimously adopted.

#### REPORT OF THE COMMITTEE ON PREMIUM TEETH.

To the President and Members of the Pennsylvania Association of Surgeon Dentists.

GENTLEMEN—Your committee appointed to examine such specimens of teeth as might be presented to them under the resolu-

\* A young lady, twenty-five years of age, general good health, nervous temperament, teeth generally good, and hold plugs well. Inferior left second molar, large plug, nerve not destroyed, been plugged about one year, has never given any unpleasant symptoms, does not wear any, but is not used in masticating; gives satisfaction.

tion passed by the Association, beg leave to report, that they have attended to that duty, and respectfully submit the following:

That there have been three samples of single teeth presented, viz:

1st. *Pivot teeth*, front and cuspidati.

2d. *Plain single teeth*, front, bicuspidates and molars.

3d. *Single gum teeth*, front, bicuspidates and molars.

The committee, by mutual consent, determined that each member should proceed to examine the different specimens alone, and note down in writing the results of his experiments, tests, and the conclusions to which he arrived, without consulting with, or knowing the opinions of, either of the others, in order, first, to arrive at an impartial conclusion, and without the bias that the mind of the one might get by knowing the opinions of the other; and second, that the teeth might be subjected, in that way, to a greater variety of tests, and to prevent the possibility of the appearance of collusion on the part of the committee, in the conducting of their deliberations. After which, notes were compared, and the following conclusions drawn, viz:

1st. *The Pivot Teeth*.—They are new in shape on the posterior parts, and which with the enamel reflected over their cutting edges nicely, and in some respects improved in shading, gives to the teeth, when set, a more natural and pleasing appearance than any heretofore within the knowledge of your committee. The pivot holes are well proportioned to the different sizes, and so directed as to dip deeply into the bodies of the teeth, and their structure is stronger than any the market affords. They are a decided *improvement in strength*.

2d. *The Plain Teeth* withstand the direct application of the flame of the blowpipe upon their enamelled surfaces, without undergoing any change or destruction of their color, to a much greater degree of heat than is necessary for soldering; hence, when they are set, they come from the fire with the same clean and lively appearance as when they were first put in, thus avoiding a very common and frequently very great annoyance experienced in working many teeth that are otherwise good and well shaded. They will, with the usual precautions, stand the sudden transitions of heat and cold better than teeth of so translucent a structure usually do. And under the hammer, the platina pivots can be mashed down to a flat rivet head against the surface of the tooth, with the plain face of the hammer, with a steady hard stroke in a direct line with the shaft of the pivot, without the pivot acting as a wedge to split the tooth, or jarring loose this attachment, and thus proving their *superiority in strength*, and rendering them capable of being rivetted strongly, where it is not desirable to solder.

3d. *The Gum Teeth*.—These are a very great improvement over any others that your committee have ever had the pleasure

of examining. They also withstand the direct flame of the blowpipe upon their bare enamelled surfaces, without either changing the color of the teeth or the gum; a severe test, that few gum teeth, if any, heretofore, would bear. Indeed, the gum color comes from the fire untarnished; it seems to be fixed by a new and superior method. Numbers of this sample were submitted to the careless application of the blowpipe upon the enamelled surfaces, upon a piece of charcoal, when ends of the teeth were heated above redness, while the other ends were still dark, without breaking, proving that they would bear the effects of unequal temperature to a very great degree. They will also stand the force of rivetting down the pivots to a flat head upon the surfaces of the teeth without splitting or jarring them loose. In fact, the whole lot are better pivoted than any your committee have ever examined. Their general finish and shape is exquisite, and when ground together present a more free and easy shaped set of teeth than any the market has ever supplied. The masticating or articulating surfaces of each sample of the bicuspidés and molars are new, and better suited to the purposes of the wearer and the dentist, if properly selected, than any within the previous knowledge of your committee. The *sharpness of their features*, so to speak, is exceedingly delicate and beautiful, so as to render them worthy of the highest commendations.

In conclusion, the general agreeable appearance, and superior finish and workmanship of all the samples named, are of the highest order, and with the few points of merit which your committee have thus briefly sketched out, together with others which might be enumerated, unanimously and cheerfully agree that they entitle the manufacturers to the premium of the *gold medal* offered by the Association. Your committee would also report that there were several specimens of block teeth presented, but none superior to those heretofore in use.

All of which is respectfully submitted, together with the following resolution:

*Resolved*, That the premium of twenty-five dollars, in a gold medal, which was offered by this Association for the greatest improvement in porcelain teeth, be awarded Messrs. Jones, White & Co., for the *most improved artificial teeth*.

Signed,	C. C. WILLIAMS,	} Committee.
	J. D. WHITE, M. D.,	
	ELI PARRY, M. D.,	

Examining Committee reported the names of Messrs. J. Stovell and J. McCalla for election to membership.

Dr. J. D. White presented the Association with a specimen of irregularity, showing a new and ingenious method of correcting it, by the use of spiral springs.

The specimen was accepted, with the thanks of the society. Adjourned.

For the Dental News Letter.

## REGULATING TEETH BY SPIRAL SPRINGS.

MESSRS. JONES, WHITE &amp; Co.

*Gentlemen:*—Accompanying is an arrangement, with bands and spiral springs, for enlarging the superior maxillary when it is contracted by premature extraction of the deciduous teeth, or any other cause, which I have used with success, in many difficult cases, for many years, as well for expanding the arch as the regulation of teeth. You will perceive that it is calculated to keep up an equal and perpetual pressure on as many teeth as is desirable.



The accompanying model presents an interesting case, and illustrates what are, too often, two inexcusable errors of the past and present generations, and of daily occurrence. 1st. That of extracting the deciduous canine teeth, to give the lateral incisors room, as it is termed, and which, as their unabsorbed fangs leave a deep wound, in healing, draws the lateral incisors and

first deciduous molars together, contracts the alveolar arch, and allowing the laterals to fall backwards and inwards, dragging the lateral edges of the front incisors along with them, and sometimes before they are long enough to grasp the inferior teeth, in advance, they are much behind them; and 2ndly. To mend the matter, when the permanent canine teeth make their appearance, apparently too far outside of the arch, (it is true but a deformed arch,) and only room for half a tooth between the laterals and bicuspides, and in some instances none at all, either they or the first molars, the most valuable teeth in the head, or the bicuspides are doomed to extraction, to make still *more room*, instead of endeavoring to remedy by art what ignorance has done, enlarge the arch and bring out the six or eight stray teeth to the canines, which are in most cases in their proper places. The manner of making it is exceedingly simple: make a plaster model of the mouth in the usual way, then fit a light band around each tooth, joining each other at feather edges between the teeth, instead of filing between, that requires to be thrown outwards. Say, for instance, it is the superior bicuspides of either side, solder those bands together on the palatine sides of the teeth, then solder a short piece of round wire on the same sides of the bands near their middle, and thick enough to allow of slipping on a spiral spring long enough to extend from one side of the arch to the other, and to lie close along the posterior parts of the front teeth; now if those bands are nicely fitted around the teeth the apparatus can be worn with comparative comfort; the patient can go to school, (as it is generally in "school days" that the

operation is required,) or even into society, without exposing so much gold as those horrible "bars" that go all around the front part of the teeth and gums. Another method of applying the spiral spring, and which is original with myself, though I do not name it to claim any credit, is as follows:

It often happens that the two lateral incisors are grasped posterior to the inferior teeth, and the front incisors are in their proper positions. By lashing down the extremities of a piece of spiral spring to the necks of the lateral incisors, and the spring extending across the two front incisors, you will perceive that they become a fulcrum for the spring to throw the laterals over the lower teeth. As the spring straightens, the laterals will be brought on a line with the central incisors. It is generally true, that, as the front teeth are harder to force backwards, on account of the alveolar process being thicker on that part than the external alveolar plate, and the teeth being large too, that they afford a sufficient fulcrumage. But if they be not, place a plate in the roof of the mouth, and fasten it to the back teeth, as if it were to set teeth, letting small pieces of plate project forward and downward against the posterior parts of the front teeth, which will prevent the possibility of their being pressed backwards.

But if it be like several cases that I am treating now, where the front teeth are too far out, by the time the laterals are well forward the fronts will be depressed sufficiently. Or when the median edges of the front teeth present the appearance of bulging out, the spring pressing upon them will level them down properly. If the laterals be too long to sweep over the lower teeth, solder to the plate, if there be one in the mouth, an inclined plane to keep the jaws apart far enough for that purpose. When the plate is not in, lash an inclined plane to one or more of the teeth. Never put a cap over a tooth to receive the direct or full stroke of the jaws in masticating. I have seen cases where the enamel has been literally mashed by that means. As many injuries have been sustained in various ways, in the treatment of irregularity of the teeth, many persons needing attention will not venture to submit to the operation. All cases require close watching, that too much pressure is not produced, so as not to establish periosteal inflammation in teeth that are not fully developed.

I also use the spiral spring for turning teeth that stand across the alveolar ridge. There are a great variety of ways of applying those springs, so as to make a very neat and comfortable apparatus for enlarging or contracting either of the maxillaries, or for operating upon a single tooth.

If the foregoing is worthy a place in your valuable journal, please insert, and oblige

Your humble servant,

J. D. WHITE.

For the Dental News Letter.

## CURIOSITIES OF DENTISTRY.

MESSRS. EDITORS:—

We have been often amused with what might be called “the curiosities of dentistry,” among which are the following: Setting pivot teeth on atmospheric pressure—sending the size of the mouth in inches, over three hundred miles, for a set of teeth, and for complexion of teeth, saying, “to suit red hair and black eyes”—taking the close or “bite” of the mouth with a lump of wax stuck on the top of a segar box,—using gold foil, A No. 1,—extracting teeth by steam,—destroying nerves of teeth by steam,—drawing teeth by suction with a patent cork screw, or an instrument similar to it,—after excising the crown of a front tooth, to assert that the nerve stuck up “a foot,”—and a manufacturer of teeth to say, in a very laudatory circular addressed to the profession, that “*his teeth can speak for themselves.*” This we apprehend will be considered an undoubted improvement, or at least, decidedly new; but if this be the case, look out, Messrs. dentists, be very careful, or they will tell the lady, who perhaps has given you considerable trouble, what you said of her in your perplexity and excited feelings, while complaining of her exactness and peculiarities. Imagine their telling her, that you said she was “an old maid;” that she made you more trouble than she was worth; that “you hoped she would never come again,” or “that you did not want to be bothered with her.” Imagine all this and many more things they could say, and you will either decline using the teeth, or keep your mouth shut during the whole operation; or, if you must use the teeth, persuade the manufacturer to “stop their mouths,” or you will be for ever undone. Many more curiosities might be given, and we will, with your permission, furnish, at some future time, another batch.

Yours,

R.

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*Gold Pivots.*—We have usually inserted in the following manner. The pivot having been previously well fitted to the hollow screw within the fang, is mounted upon the tooth to be inserted: with a sharp instrument the whole of its exposed surface is cut up into numerous small barbs, opening downwards, then with a watch-spring saw, the pivot is split about one half its length; the two branches thus made, are slightly separated, yet so as to spring together by pressure. The edges of the top of the pivot is trimmed down with a file, so as to admit of its entering the cylinder, when it is forced to its place.

When thus mounted, we have never been troubled by teeth coming out, or being displaced. The *action* of the pivot is self-evident.—*Am. Jour. Dent. Science.*



# THE DENTAL NEWS LETTER.

JULY, 1850.

## ENLARGEMENT.

We have come to the conclusion to enlarge the fourth volume of the News Letter to one hundred and eighteen pages, thus adding eight pages to each quarterly issue. This will make quite a sizeable periodical, and we express a hope that the profession will exert themselves to sustain it nobly, by original communications.

Our course has been onward, as a retrospective glance will show.

The first volume contained but twelve pages to the number; then we enlarged the second volume to twenty-four pages, or twice the size of the first, and continued the third volume the same size as the second; but in the last number of the second volume we expressed our desire to increase the size of the third volume, and pledged ourselves to do so, providing we had evidence on the part of the profession, that they would sustain us in the enlargement, by contributing to its pages. We left the matter with them, but in consequence of a want of evidence on their part to supply matter, or an apparent lack of inclination to contribute, we deemed it advisable to continue the third volume the same size as the second; now, however, we will take the responsibility of enlarging, asking pledges of none, but fully believing that they will understand and appreciate our motives, and aid us manfully in carrying out our design, that of making the Dental News Letter a creditable and useful periodical, rendering it efficient in disseminating the truth—in giving all the improvements that are made from time to time, and of advancing the interests, and aiding in the work of elevating the dental profession to that position to which it is entitled, and which it is now fast approaching. These are our objects; and in carrying them out, we shall look earnestly—and we hope not in vain—for indications of interest in our enterprise. We hope to have it put in our power to issue the first number of the fourth volume—and indeed all the future numbers—filled with original articles of general interest.

In consequence of the enlargement, and believing the work abundantly worth it, we have come to the conclusion to advance the subscription to one dollar per annum. If forty-eight pages—the number in the first volume—were worth fifty cents, surely one hundred and eighteen—the number we design printing in the fourth volume—are worth one dollar.

## OPENING ADDRESS BEFORE THE ALUMNI OF THE BALTIMORE COLLEGE.

BY E. TOWNSEND, D. D. S.

We have been favored with a copy of the above address, and have read it with pleasure and profit. There is a fervency—an earnestness, a warmth about it, much to our liking. The instruction given to the young members of the profession is good—very good. The liberal views entertained on all points, and the perfect absence of all selfishness, (that bane of the profession,) cannot be too highly commended; and we would that all manifested the same liberality with their professional associates as is expressed in the following passage, which is the only quotation we have room for:

“From duty to our patients,” (to which subject he has devoted considerable space, doubtless to great profit and usefulness to those just starting in the profession,) “I turn to the equally delicate subject of duty to our brethren. To them we owe justice, candor and courtesy; we owe it to them in their own right; and for the sake of a common effort and aim, we owe to all, as well as need from all, a frank and respectful interchange of kindly offices.”

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### *Treatment of the Dental Pulp preparatory to Plugging.*—

As will be seen from the article under the above head, in this number, the author has completed the series. We have to thank him for his kindness in supplying a paper for each issue of our News Letter; and, that notwithstanding the pressure of engagements, he has taken the time to give to its readers many interesting facts, the result of long experience and close attention to the subjects on which he treats.

The articles evince much thought, many experiments, and a great devotion to the science of dentistry.

He will pardon us, we trust, in stating that each number of the News Letter will contain an article from his pen; in short, that he will continue a regular contributor.

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*Branch at Boston.*—In June last, we opened a branch of our establishment at 23 Tremont Row, Boston.

The wants of the profession in the Eastern States may thus be met, as it affords increased facilities in obtaining supplies, and we think the enterprise may be made beneficial to both parties,—the manufacturer and consumer.

We design keeping there a full supply of all articles needed by the profession, and invite their attention and patronage. We would be pleased to receive from that quarter any suggestions in reference to teeth, etc., and solicit communications for the News Letter.



Above we give cuts of the two faces of a beautiful medal just awarded us by the Pennsylvania Association of Dental Surgeons.

We desire to call special attention to the report of the committee on *premium teeth*, which will be found on another page, and which is very encouraging to us. We fully appreciate the trouble the committee took, and admire the plan they adopted to arrive at a fair and impartial conclusion.

We are satisfied that much has been accomplished, and think that more may still be done to improve the manufacture of artificial teeth; but while we have such incentives, such strong and flattering testimony, and by men fully competent to judge—we do not despair of making greater improvements; for, if increased efforts and a strong determination, with abundant facilities, will accomplish any thing, we have hopes of success.

We add the following additional testimony, which are brief extracts from letters.

“I acknowledge with pleasure, the faithfulness with which you have heretofore executed my orders, and for which you have my sincere thanks.

“You certainly manufacture the most beautiful and *natural* teeth which I have any where seen, and I feel that you are not only increasing your own reputation, *but my own*. Whilst you continue to give such eminent satisfaction, *my* prosperity cannot but add *something* to yours.”

H. S. CHASE, *Dentist*.

Woodstock, Vt.

“I must now add my testimony to numerous others, that they approach nearest in appearance to the natural teeth, and are in my opinion the best now in use.”

C. PALMER, *Dentist*.

Warren, Ohio.

We have had manufactured a large quantity of casting cups or rings, for casting the metal models. They are made of malleable iron, therefore tough, and less liable to break than those made of ordinary iron.

We have had presented us a neat and simple little contrivance for winding springs. We have not tried it, but presume it may be made useful to the dentist who has time, and prefers making his own springs; but for us would be rather slow, as time is an object, to enable us to sell the article at the present price.

The inventor, Dr. B. M. Esterle, of Steubenville, Ohio, is entitled to credit for his invention, and he has our thanks for the specimen.

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We were pained to hear of the decease of Dr. Thomas Pierce, of Havana, Cuba, and formerly, we believe, of Elizabethtown, N. J. He died at the former place, in June last, of cholera.

He was of generous impulses, open-hearted, and a steadfast friend.

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With this number we publish an index and title page for the first, second and third volumes of the Dental News Letter. Hereafter we shall publish an index at the close of each volume.

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From the Boston Medical and Surgical Journal.

### A NOVEL CASE OF ANEURISM—FROM MY NOTE BOOK.

BY A. C. CASTLE, M. D., NEW YORK.

The subject of the following singular and interesting case of aneurism, was the eminently distinguished artist, the late Mr. C——e. I had made for that gentleman a partial set of teeth, to complete the superior maxillary apparatus, in place of the absent organs. They were fitted to the mouth compactly, and had been worn without any inconvenience for several weeks, to the entire satisfaction of the wearer, when Mr. C——e was much annoyed by a small vesicle, which had made its appearance upon the lingual centre of the roof of the mouth, immediately upon the terminal edge where the gold plate formed the basis upon which the denticulation was completed. The vesicle gradually increased until it had attained a size double that of the following capital letter O. Its color presented a deep purplish hue, similar to the hæmorrhoidal tumor. The first instance of its appearance, upon examination, I conceived its character to be that of the ordinary "water blister," so common to this part of the mouth, caused by taking food too hastily into the mouth whilst in a hot state, or consequent upon a deranged state of the *primæ viæ*. An "astringent mouth wash" and an aperient medicine were prescribed. When the material change had taken place, as I have stated above, I was of opinion that the compression of the gold plate over the large surface of the soft texture of the gums and the roof of the mouth, had impeded the circulation of the blood, and had caused an enlarged varicose tumor. It exhibited no

pulsation, nor any other indicant than an *inert* and now pendant encysted blood-sac. With a pair of curved scissors I snipped off the sac, which was followed by a gush of blood, filling the mouth and fauces, almost causing suffocation; the patient not having been prepared for this contingency. The blood being emptied from the mouth, I found that it continued to flow *per saltum*, in a large full stream. I at once perceived that instead of a varicose tumor, as I had supposed, I had removed the aneurismal sac of a large artery. The diagnostic marks had been vague and undefined, and nothing characteristic warranted a different diagnosis and action upon an affection—never perchance met with before—the attendant upon an anatomical digression of rare occurrence. The patient, naturally enough, was very much alarmed. His mouth was constantly filling with arterial frothy blood, added to the apparent impossibility of getting at the artery to secure it; pressure having altogether failed to arrest the hæmorrhage.

I was fortunately enabled to overcome this seemingly formidable difficulty, with little trouble. While a student, I was engaged upon “a subject,” dissecting the head and neck regions, tracing the relative positions of the arteries, nerves, veins, &c. &c. In so doing, I traced the anterior palatine artery passing through a hole in the centre of the suture of the palatine bones, whilst the *foramen incisivum*, or anterior palatine hole, was absent; which, as is well known, is found immediately behind the alveoli-palatine bones, between the two superior incisor teeth. I called the attention of Professor Mott, and Dr. Rhinelander, Professor of Anatomy, to the circumstance. They informed me that they had met with one or two similar cases—of course of no further importance than (as in this case) the knowledge of this anatomical deviation from the usual natural design.

This anomalous affection, and its result, brought to my mind—which after circumstances proved to be correct—that the *foramen incisivum* was, in this case, situated in the centre of the palatine bones, and that either by mechanical pressure of the gold plate, or from some other cause, the aneurismal affection of the anterior palatine artery had been superinduced, and the pendant aneurismal sac formed. The indication was, of course to arrest the hæmorrhage. I proceeded to cut a piece of cork (*quercus suber*) into the form of the letter x, which I inserted into the end of the canula of a small sized trocar. I passed the mouth of the canula well through the orifice into the palatine hole, and with a blunt piece of wire, in the place of the trocar, pushed the cork into the desired position. It formed a most excellent *button plug*, and instantly stopped the bleeding. On the fourth day after its insertion, the plug came away, and the patient experienced no further difficulty or inconvenience.

New York, February 12, 1850.

RESEARCHES ON THE DEVELOPMENT, STRUCTURE,  
AND DISEASES OF THE TEETH.

BY ALEXANDER NASMYTH, F.L.S., AND M.R.C.S.

London : Churchill. 8vo., pp. 230.

This is an admirable work, and worthy of our warmest admiration. Totally different in its character from those puny compilations which are put together for the mere purpose of an advertising medium, we find here the results of a laborious philosophic and practical inquiry, by which the boundaries of knowledge are extended, by which human suffering may be relieved, and by which the character of the profession to which the lamented author belonged will be elevated. It is greatly to be deplored that he did not live to enjoy the fruits of his zealous, and, it is to be feared, too earnest labors, though the fatal illness to which he fell a victim, did not arrest his labors until he had completed the manuscript of this work. We find that it contains eleven chapters. The first is devoted to the general physiology of the dental system; the second gives an admirable description of the anatomy of the mouth and jaws; the third and fourth chapters include the descriptive, general, and minute anatomy of the teeth; the fifth comprises the development of the formative organs of the teeth; the sixth contains the minute anatomy of the dental capsule and pulp; in the seventh chapter, the development of the permanent teeth is described; in the eighth chapter, the teeth are considered as a test of age; and, in the ninth, as an indication of the progressive improvement of the human race. The much debated question of the mode of development of the ivory is discussed in the ninth chapter; whilst in the tenth and last chapter, the chemical composition of the teeth is given. Illustrations on wood and stone, admirably executed, greatly enhance the value of the text. The following extract will convey some idea of the variety of topics which are here treated, and the mode in which they are discussed.

*“On the structure and development of that portion of the epithelium which lines in the cavity of the mouth.—*In the foetal subject, previous to the extrusion of the teeth, it forms on the alveolar arch a dense projecting layer, distinguishable from the surrounding membrane by its whiteness, and by the existence on its surface of ridges and sulci, having a waving course and a variable direction. The alveolar epithelium is thicker in proportion to the youth of the subject examined. It is most prominent where it corresponds with the molar teeth; its internal surface is concave, receiving the projecting mucous membrane. This disposition presents various objects for investigation. Firstly, as regards its composition: it is made up of a mass of scales, lying one on the surface of the other. This disposition shows that the



terms 'dental cartilage, or the cartilage of the gum,' which have hitherto been applied to the structure, give an enormous idea of its true nature, for cartilage always presents the corpuscles discovered and described by Purkinje. As in other portions of the epithelium, the external scales here are the larger, and this holds good generally, until we come to the surface of the vascular mucous membrane, which presents simple cells with their corpuscles. In the interior of this alveolar epithelium, where it corresponds to the molar teeth, small vesicles may be frequently observed, varying in size from one-fourth to one-eighth of a line in diameter. They appear to the naked eye to be transparent; under the microscope their parietes are found to consist of attenuated scales, and their cavity to contain a fluid abounding in minute granules and cells.\* The internal surface of the epithelium, covering the alveolar arch, frequently presents concavities or indentations, which are from a line and half to three or four lines in circumference; they correspond to projections from the mucous membrane, formed by a larger species of vesicle. The latter is deeply implanted in the vascular mucous membrane. The parietes of the vesicles are composed of a very delicate membrane; they contain a transparent fluid, which coagulates on the application of heat or acid, or on immersion in spirit; and in this fluid float numerous globules and scales, similar to those of the epithelium generally. The *internal* surface of the alveolar epithelium also presents numerous fringed processes, measuring from one line to one line and a half in length, and half a line in breadth, which sink into the substance of the subjacent mucous membrane.....Although it contains no blood-vessels, the epithelium receives its nutrition from the blood circulating in the capillary vessels of the mucous membrane, and it follows from this circumstance, that if from any cause the blood should become morbidly altered in its qualities, the epithelium will suffer accordingly. Many of the appearances which the surface of the tongue presents under the influence of disease, and which offer to the medical practitioner so valuable a guide to diagnosis, are in reality nothing more than alterations in the epithelium, resulting from vascular changes in the papillæ of that organ. In like manner, the dental practitioner becomes familiar with morbid states of the epithelium of the mucous membrane of the alveolar arches and gums."

Valuable practical suggestions like that comprised in the concluding paragraph abound throughout the work, and render it not only interesting from its general character, but positively and practically instructive to all engaged in the healing art; whilst

\* The vesicles here alluded to are most probably those which Serres describes as glands for the secretion of tartar; they are very numerous, even after the extrusion of the incisor teeth of the calf, and are seen with great facility internally.

to those who practise that branch to which the author belonged, we consider the work to be as essential as it must be a valuable acquisition. Mrs. Nasmyth merits the highest praise for the very judicious manner in which she has performed the melancholy duty of placing the work before the profession.—*London Lancet*.

---

The original of the following we found in the "Scalpel," and took the liberty to alter it so as to apply to the removal of a tooth instead of a tumour.

### COGITATIONS OF A PATIENT AWAITING THE DENTIST.

Yes! I'll have it out! I will not suffer more  
From such a wretched, constant, mad'ning bore;  
Projecting from my gum, as if a quid of Indian weed  
Had found a lodgment there, for future time of need.

Out with it—yes! zounds! had I but *now* a knife,  
I'd out with it myself, and run the risk of life.  
The clock strikes two; where does that dentist stay?  
The ladies' are to ride!—he's gone out for the day.

But now I'll sit me down and attempt to read this book,  
Forgetful of that long-faced dentist's most mischievous look;  
But hark! who comes? 'tis he! methinks it scarce were sin,  
Softly to lock the door, and say I'm not within.

But, 'tis too late! here's for it! I sit in that *dread* chair,  
While he, with face all smiling, without a fear or care,  
Upon the table spreads with noise and much display,  
His lancet, hooks and forceps—a most dread array.

And smiling most benignantly, "now, sir, I'm ready if you please,"

As if he were to carve a steak, he seemed so much at ease.

"But, doctor, it do n't hurt *now*! I—I—guess I'll call again;"

"No! No!" quoth he—"now is the time to ease you of your pain."

C-r-a-s-h! goes the knife. "Hold still! 't will soon be done;"

C-r-a-s-h! c-r-a-s-h! "Mercy! how the blood does run."

"Once more! hold still a moment, till I apply the key,"

"And you, sir, pray keep still, and don't take hold on me."

C-r-a-s-h! there! 'tis done! Reader, have you ever  
Suffered from an aching tooth, which put you in a fever,  
And caused you to be ill-natured, to fume, and fret and flout;  
If so, go to the dentist and have the monster out.

ASAHEL JONES. SAMUEL STOCKTON WHITE. JOHN R. McCURDY.

# JONES, WHITE & Co.

MANUFACTURERS OF

## PORCELAIN TEETH,

## GOLD & TIN FOIL, PLATE, SPRINGS,

PLATINA PLATE & WIRE, EMERY WHEELS, &c. &c.

No. 263 Broadway, (opposite the Park) New York;

And No. 120 Arch St. (one door below Sixth,) Phila.

And Branch at 23 Tremont Row, Boston, Mass.

J. W. & Co. have, at the above named places, a full assortment of PLATE, PIVOT, MOLAR, BICUSPID, and GUM TEETH; GOLD and TIN FOIL, EMERY WHEELS and SLABS, DENTAL FILES, INSTRUMENTS, CHAIRS, &c.; where we would solicit the patronage of the Profession, pledging ourselves to use our utmost endeavors to give satisfaction, as particular attention will be paid to select Teeth according to order.

All orders, *enclosing the cash*, will be promptly and carefully attended to.

N. B. Orders for Instruments will be executed with care, at manufacturers' prices.

## DENTAL CATALOGUE.

### Teeth.

Plate Incisors.	
“ Cuspidates.	
“ Bicuspids.	
“ Molars.	
Pivot Incisors.	
“ Cuspidates.	
“ Bicuspids.	
“ Molars.	
Gum Incisors.	
“ Cuspidates.	
“ Bicuspids.	
“ Molars.	
Teeth in sets, on cards, of all shades and sizes.	

Cast Iron Boxes, for casting metal,	38
Ladles,	50 to 62
Scrapers, for plate,	25
Burnishers, for plate,	33
Tin Moulds, for taking wax impressions,	15

### Gold.

A superior article of Gold Foil, from No. 4 up to 12, inclusive.	
Gold Plate, 18 Carats fine, per dwt.	90 cts.
“ Solder, 14 & 18 “ “ 75 & 90 “	
“ Spring Stuff, 18 “ “ 90 “	
“ Wire, round and half rd. “ 90 “	
“ Spiral Springs, 18 Carat “	1 00

### Silver.

<b>For Mechanical Dentistry.</b>		Silver Plate.	
Steam Blow-Pipe,	12 00	“ Solder.	
Plain “ “ from 25 cents to	1 00	“ Powder.	
Plate punches,	1 50	“ Wire.	
“ “ Improved,	2 50	“ Springs,	per pair 50 cts.
Grinding Apparatus, accelerated motion,	4 50 to 10 00	Ivory Handle File Holder, to shift with spring,	4 00
Round and flat Nose Pliers, from 31 cts. to	50	Ivory Handle Drillstock and Bow,	4 00
Shears for cutting plate, from 62 cts. to	1 25	Head Rests, that can be adapted to any kind of chair, well suited to traveling dentists,	5 to 8 00
Forceps for holding plate,	1 75		
“ “ clasps,	1 25		

Our customers will take notice, that we cut Gold Plate to patterns sent by mail, or otherwise, at the price quoted in our Catalogue, viz: 90 cents per dwt. As postage is low, this affords facilities which all may not be aware of.

## MISCELLANEOUS.

Spar and Silix, crude and prepared, best qual.; Clay do.; Dental Furnaces, Muffles and Slides; Tin Foil, a superior article; Tooth Brushes; Tooth Powder Boxes; Polishing Brushes, for Plate; Files of all descriptions; Dental cases, from \$25 to \$250; Grindstones; Plaster of Paris; Spelter and Lead; Silver Mouth Mirrors; Ivory, do.; Pearl, do.; Pivot Wood; Rotten Stone; Rouge; Operating Chairs, of various patterns, Works on Dentistry; Articulators; Plate anvils; Brush Wheels, various kinds; Beeswax, white and yellow; Bench Tools of all descriptions; Rosewood Mouth Mirrors; Hand Mirrors; Arkansas Oil Stones; Burrs, Drills, Excavators, Burnishers, &c.; Instrument Handles, Ivory, Pearl, Wood, Bone, Cameo, and Agate; Cutting Nippers; Tweezers, Dividers, Nippers, &c.; Teeth holders, for holding the teeth while grinding them; Mouth Plates, or Napkin Holders, for preventing the flow of saliva while filling the teeth. Oxide Uranium, do. Titanium, do. Cobalt, do. Manganese, do. Gold; File Handles; Crane's Case Book; Ambler's Journal of Dental operations; Floss Silk; Teeth Polishers, &c.

THE  
DENTAL NEWS LETTER.

A QUARTERLY PUBLICATION,

DEVOTED TO THE

INTERESTS OF THE DENTAL PROFESSION.

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VOLUMES IV. AND V.

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JONES, WHITE & M'CURDY,

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TREMONT ROW, BOSTON.



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# THE DENTAL NEWS LETTER.

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No. 1.

[In consequence of the demand by dental students and some young practitioners, for a plain, concise and practical essay on mechanical dentistry, the following article was, at our request, prepared. The author is well versed in that branch, and fully competent to teach it.

We will take this occasion to say, that of all the letters of inquiry sent to us, more than one-half of them have been on subjects connected with mechanical dentistry, and it is no small tax to us, particularly in time, to answer them. We hope, therefore, that the following will relieve us to some extent at least, although we do not wish to cut off all inquiry, but on the contrary, desire to communicate to the extent of our ability.

To some it may seem like going back to the alphabet, or first lessons in dentistry, but to many it will be of much interest, and for those only was it written.—ED.]

For the Dental News Letter.

## MECHANICAL DENTISTRY.

BY T. L. BUCKINGHAM, DENTIST, PHILADELPHIA.

*Taking an impression in Wax.*—Select a cup large enough to leave a space of an eighth of an inch for the wax between the cup and the gum. Prepare the wax by softening before a fire, and working it in the fingers until it is soft enough. Fill the cup full of wax, giving it somewhat the shape of the gum, and using no more than is necessary. Put it in the mouth, standing behind the patient when the impression is for the upper jaw, and before when it is for the lower jaw. Put one hand on each side of the cup, and press it gradually up until the impression is nearly deep enough; then, holding the cup steady with one hand, press the wax close to the gum on the outside, and also to the roof of the mouth; now put one hand on each side of the cup, and press it up a little farther and the impression is complete. To remove



it, take hold of the handle of the cup and loosen it gently, and take it out of the mouth by turning it so that one side will come out first. Be careful not to let the lips bend the edge of the wax over into the impression. If, in loosening the wax from the mouth, the teeth have drawn the wax up around the impression of them, it can be cut off with a knife. Compare the impression with the mouth, to see if it be correct, and fix in your mind the teeth that are to be clasped, if clasps are necessary.

*Taking an impression in Plaster.*—Plaster impressions are taken of the upper jaw only, and where there are no teeth; for, if there are teeth, they would break the impression so much in removing it, that it would be useless.\* The cup should be of the shape of a suction plate. If such a one is not to be had, an ordinary cup can be substituted by building it up back with wax, to keep the plaster from running out. Make it as near the shape of the mouth as possible, only larger. Mix the plaster pretty thick, stirring it well while mixing, and pour into the cup, leaving it stand a moment, or until it becomes so stiff that it will build up without settling down. The patient should have a napkin spread over the breast to protect the dress from any plaster that might fall, with the head inclined forwards to prevent the possibility of any of the plaster going down the throat. Get the plaster into the mouth as gently as possible, and press the cup gradually up until the impression is deep enough, and hold it there until the plaster sets, which will be from three to five minutes.† It can be told when the plaster is hard enough, by trying what hangs over the edge of the cup, or what has been left in the vessel the plaster was mixed in. When it breaks short, or has lost the sticky feel, it will do to remove it from the mouth.

Plaster takes a much better impression than wax. The wax, when pressed up, will slide over the roof of the mouth, which

\* There are some who succeed in taking an impression of the lower jaw in plaster; and also, in taking impressions where there are teeth remaining in the mouth; the latter they accomplish by breaking the impression in the mouth, and connecting the pieces afterwards by cement.

† The plaster will harden sooner by mixing it with salt water. This will do in taking impressions, but will not answer for casts, as it makes the plaster crumble.

often spoils the impression; and, again, it often sticks to the mouth, and is difficult to remove, or the edges will be curled over in removing it from the mouth; but none of these objections will apply to plaster, excepting that the edges may be broken in removing it; but these can be replaced and made perfect by using a little cement.

I am satisfied that, if the mode of taking impressions with plaster be once adopted, it will not be abandoned, at least not to go back to wax. Out of a number of cases I have never failed to make a good fit when I took the impression in plaster.

*To make the Plaster Cast.*—Take a strip of sheet lead, such as is used for cutting patterns, or a piece of paper folded three or four times, leaving it some two inches wide, and a foot or more long. Set the wax impression after oiling it, on the table, and fold the strip of paper around it, and so shape it that the cast will be largest at top;\* mix the plaster just thick enough to flow into all the indentations in the impression; then with a knife or spoon, drop a small quantity into the impression, commencing at the roof of the mouth, letting it flow down gently, filling up the impressions of the teeth, when the balance may be poured in from the cup until you have the cast from one and a half to two inches thick. Let it stand until the plaster is hard enough to keep its form, then remove the band and let it remain until perfectly hard. The wax can be removed by first cutting it away, so as to free the edge of the cup all around, then by running the point of a knife between the cup and wax, the cup can be forced away, leaving the wax on the cast. Then hold the wax to the fire until it is quite soft, and holding the cast in one hand, bend the wax up in front until the surfaces of the teeth are exposed, then cut the wax away until the teeth are all free, then the large portion of wax in the cavity of the cast can be removed in a lump. The cast should now be trimmed, so as to draw readily from the sand. If the front of the cast, or the teeth on one side should project, there must be left a corresponding fulness on the opposite side; or, that a line drawn lengthways with the teeth in front, and one drawn on the opposite side of the cast would diverge as they go from the teeth to the top of the cast.

\* In taking a cast from a plaster impression, allow the impression to become perfectly dry, then oil it, and cast as described for wax.

If the cast is not perfect around the teeth, it must be trimmed until it is so. Of course, the object is, to have a perfect model of the mouth. It is well to varnish the cast with some spirit varnish; I prefer a varnish made by dissolving gum sandrach in alcohol, as it leaves the cast almost white, and penetrates farther into the cast, thereby making it harder than the shellac varnish, which is generally used.

If the points or edges of the teeth are closer together than their necks, the space should be filled up with wax until the sides are at least parallel. If it is designed to fit a cavity plate, the wax for forming the cavity should be put in after the cast has been varnished, as it sticks much better on the varnished cast; and it can be varnished also.

*Moulding in Sand.*—Take some of the finest casting sand,\* just moist enough to hold together; fill a small vessel, say a common tin cup. If it is too wet, the hot metal when poured into it will cause so rapid an evaporation of the moisture as to make the metal boil; and if too dry, will crumble when the metal is poured in, either of which would spoil the cast. Screw an ordinary stump screw into the top of the cast, and press the cast, teeth down, into the sand, then pack the sand around the cast, until the sand is level with the top of the cast; now take hold of the screw with one hand, and with a small hammer in the other, tap the shank of the screw gently, so as to jar the cast in the sand, and turning the cup around, striking the screw on several sides, until the cast is loose, then lift it up slowly and carefully, tapping the screw in the meanwhile, until the cast is out of the sand. If the sand has drawn up around the teeth, brush the sand off the cast, and replace it in the mould, going through the operation as before, and if necessary, repeat, until the mould is perfect. If a little loose sand should fall into the mould, it can be turned up and the sand blown out. The sand should not be packed too tight, but have it sufficiently porous to allow the vapor to pass through it.

*Making the Zinc Cast.*—Melt a sufficiency of zinc, and when it has just melted take an old knife, or something similar, and

\* We have noticed that common whiting has been used instead of sand with good success.

skim off all the dross; let it stand until it begins to harden, or stick to the sides of the ladle, then pour it into the mould, beginning at a part of the mould where it is not required to be perfect, for fear of the metal washing the sand, continue to pour gently, with the ladle close to the sand, until the mould is full. Let it stand till the metal is hard, then remove it and cool in water. If the cast is not perfect around the teeth, the superabundance can be cut away with a coarse file and graver; and if necessary to separate the teeth on the zinc cast, it can be done with a small saw, such as carpenters use for sawing circles. The zinc cast should of course be a fac-simile of the plaster model.

If a zinc cast has been properly made, it will be as bright and smooth as a piece of silver plate. If the zinc be poured too hot it will boil, though the sand be in a proper state.

*To make the Lead Cast.*—Put the zinc cast into a cup or ring, with the teeth up, and with a small quantity of sand under it, to make it set steady; then fill the cup with sand, and pack it down, until it is three-quarters of an inch above the teeth, then cut the sand out with a knife, until all the parts of the zinc cast, where the plate is to fit, are exposed. Where the plate curls over the gum, the lead cast should be thick, but it need not run farther down on the zinc cast than the plate is to go. If the lead cast be too deep, it makes it more difficult to swedge the plate, and the plate will stick in the lead, and be bent in getting it out. Melt the lead in another vessel than the one in which the zinc was melted, for if but a small portion of lead be mixed with the zinc, it will spoil it for future use. Pour the melted lead over the zinc cast as prepared, and in a few minutes remove them and wash clean, and knock them apart with a hammer, and all is ready.

*To make a Plate.*—Take some thin sheet lead, and by pressing it down on the cast and marking and cutting out, get a pattern of the size the plate is desired, then spread the pattern out, and lay it on the plate, and mark and cut out; anneal the plate by heating; now, with a pair of plyers, or bending plate forceps, and a small wooden mallet of suitable size, fit the plate, as near as possible, to the zinc cast, then put your casts together with the plate between them, and strike the zinc cast lightly with a hammer, then take them apart and see if the plate is in its proper

position, and repeat, striking the cast a little harder, until the plate is nearly up, when, with two or three smart blows, the plate is made to fit the cast accurately.

In swedging a plate be sure to get it started aright, and it may be necessary to anneal it two or three times during the operation, and also to file away a little if it should bind too tightly in any place. When the plate fits the zinc cast, it should be tried on the plaster cast to see if it fits it also. Then bend the clasps with a pair of round nosed plyers to fit the teeth as near as possible, particularly around the necks of the teeth where they are to be soldered to the plate, and file the plate away to allow them to go down between it and the teeth; now arrange the plate and clasps on the plaster cast, and stick them together with some wax or cement, then lift them carefully from the cast, and set them on a piece of charcoal, then pour some mixed plaster over the ends of the clasps and under the plate; when it gets hard remove the wax, and if there is any place where the clasps stand off from the plate, fill it up with scraps of gold; now coat the places, or joints, where the solder is to flow, with borax, and lay on the solder and melt or flow it; when it is cold try it on the zinc cast, and fit the clasps up to the teeth with a small hammer, then remove and file the clasps and plate to the shape they are to be, then put the plate on the zinc cast, and, after cutting away the lead cast so as not to drive the clasps down too far, put them together and swedge the plate up again, and see that it fits the plaster cast. The plate should now be boiled in some diluted sulphuric acid, for a few minutes, to remove the fire coat, and, after washing it, stone up and polish the plate. Some do not polish till after the teeth are soldered on, but I think much time is saved by polishing at this stage of the operation, as it can be done so much more quickly than when the teeth are on. Now try the plate in the mouth and make it fit perfectly easy. Cut, file and bend it, if required, till both yourself and patient are satisfied.

It is very important that we should have the confidence of the patient, and this can generally be secured by giving satisfaction, and also by making all necessary explanations.

When the plate has been properly adjusted, take the close of the mouth as follows: Put the plate on the plaster cast, and

arrange wax on the plate where the artificial teeth are to go, leave the wax longer and fuller than the artificial teeth are to be, then put the plate in the mouth with the wax on it, and have the patient close the mouth naturally, and if there are natural teeth in the opposite jaw which antagonise with teeth in the jaw you are fitting, let the mouth be closed until they come together. If there should be no natural teeth to articulate, some hard substance had better be put into the wax to keep the patient from biting too far into it. Notice, that in closing the mouth, the under jaw has not been projected or twisted laterally, but that it has been a natural close. As patients are very apt to project the lower jaw in closing the mouth, a good plan to prevent it is, to put the hand against the lower jaw, and press backwards as the jaw closes. If the close has been correct, mark the exact centre of the mouth, and remove the plate and wax, and select a tooth for shade.

*To make an Articulating Cast*, place the wax with which the close of the mouth was taken and plate, on the plaster cast, and fill up the roof of the mouth even with the points of the teeth, and nearly as far back as the back of the cast; then cut a V shaped groove down the back of the cast, and oil it well, so that the articulator will not stick to it; then mix some plaster and drop it into the impressions of the under teeth, and let it flow down the back of the cast, filling up the groove; then make the plaster thick enough to build up with a knife.

The articulator should be about half an inch thick on the top and back. When the plaster has set, it can be trimmed off, and the casts taken apart. When the plate and wax are removed, and the casts put together, we have a fac simile of the mouth when closed.

The teeth may now be selected to suit the case; the shade tooth and articulating cast will be sufficient guides in their selection. To grind the teeth to the plate a grinding machine of some kind is necessary, with several sizes of emery wheels. I prefer a small lathe, as it best answers to polish plates. Put the plate on the cast, and commence to grind the teeth to fit. If it is intended to run the necks of the teeth over the plate and press upon the gum, the cast should be scraped away about the thickness of a five cent piece; if, however, the gum be very soft or spongy, it may be scraped even further. The teeth should be ground to fit



the plate, and the neck-press upon the cast, allowing sufficient projection to clear the under teeth. The necessary projection and length will be ascertained by putting the casts together, as the teeth are ground to suit, they must be attached to the plate in their proper position with cement. (Cement may be made by melting beeswax and rosin together.)

Another and quicker way to grind the teeth, is to build up some wax on the plate, and arrange the teeth around on the wax, but as we cannot see the back of the teeth for the wax, we have to grind by guess, and often leave a space between the base of the teeth and plate.

When the teeth have been ground and properly arranged, remove the plate and teeth from the cast, and set them on a piece of charcoal, then mix some plaster and sand, about equal parts, and pour it around the teeth, and let it flow under the plate; when the plaster is about half way up the front of the teeth, put a piece, or two or three pieces of stiff iron wire, twisted together, around the front of the teeth, so that if the plaster should break in heating, the teeth will not be drawn out of place; then build up the plaster until the points of the teeth and the clasps are covered. The plaster should be about half an inch thick. If there be too much plaster it will take an extra heat to solder the teeth, and if too little, it is liable to break before the teeth are soldered. When the plaster has become hard, the cement that held the teeth to the plate can be removed, and the stays put on the teeth.

In putting the stays or lining on the teeth, take a strip of gold—if a gold case—of suitable width, or nearly as wide as the teeth, and stand it up against and along the back of the tooth, and file the end if necessary to fit the curve of the plate to which the lining is to be attached when soldered, move it sideways against the lower pin of the tooth, and it will be marked where the pin comes, then with the punch forceps, punch a hole for the pin, then put it back again with the pin in hole, and move the strip as before against the upper pin, by which you get the spot to punch the other hole; see that it fits the tooth after filing off the metal which the punch has driven through, then countersink the holes on the outer surface, and cut the lining off the proper length. I generally leave the lining large enough to cover nearly the whole surface of the tooth. In punching the linings, punch always from the side that goes next the tooth.

For the Dental News Letter.

## BRIEF REMARKS ON ODONTALGIA.

*Its Varieties, Treatment, and the Destruction of the Dental Pulp.*

BY GEO. J. ZIEGLER, M. D.

*Messrs. Editors,*—The few subjoined and hastily written remarks, slightly modified, for obvious reasons, were elicited in answer to a request by a practicing physician in the South, for information with regard to the treatment and destruction of the dental pulp. Thinking that they might be made more generally useful, and as an appendix (if I may claim so high a character for them) to the excellent paper of Dr. J. D. White, in your last number, I transmit them to you. If you should consider them worthy of insertion in your valuable Journal you are welcome to them.

The best mode of treating nervous irritation, either of a primary or secondary character, in any part of the system, in the teeth particularly, is on the principle of *ubi irritatio ibi affluxus*, and, of course, by allaying the first, the second is prevented, retarded or arrested, and in consequence generally subsides in a great measure.

Odontalgia may depend upon, or result from various conditions. 1st. It may be purely inflammatory, and confined to the interior of a tooth; 2d. Neuralgic, which may be either of a local—limited to the part—or of a sympathetic origin; and 3d. There may be a pseudo-odontalgia, viz: periodontitis.

The two former are generally treated similarly, viz: 1st. Allay the excitability or irritability of the nerve by anodynes, the best of which are aconite, morphia and chloroform; and 2d. Remove the superabundant blood from the vessels by means of astringents, the best of which is tannin; or, which is still better, combine the two, anodynes and astringents. This combination of tannin with the vegetable alkalies would seem to be objectionable from their incompatibility with each other, yet in practice I have not found their properties destroyed on this account, but have obtained very speedy and beneficial results from them; the compound of tannin and morphia, particularly the one most generally employed. In the third, viz: periodontitis, in addition to these, scarification

of, and leeches applied to the gums, with counter-irritation in the vicinity of the disease, and occasionally in violent cases catharsis will also assist in, and be often, of themselves, adequate to the cure.

The utility of the destruction of the nerve, or pulp of the tooth, is denied by many, but, in my humble opinion, without just cause, for we have a precedent in nature in the vegetable kingdom, the teeth bearing somewhat the same relation to the animal body that vegetables do to the earth. Thus, for instance, you will often find the whole interior or medullary part of a tree or plant destroyed, yet they will continue to grow and flourish for years afterwards, being supported by the nourishment afforded by the exterior surfaces or vessels, they in fact being generally the capillaries or nutrient vessels; the interior or central hard portion of many vegetables being analogous to the bones of the animal system, hence assisting materially in their support.

And again, to come more directly to the subject under consideration, the pulps of the teeth are frequently destroyed by a variety of causes, yet it does not necessarily occasion a loss of them, for they often remain healthy, and are useful for years subsequently.

In the same way, in the destruction of the nerves of the teeth we choose the lesser evil, viz: either to extract, and thus sacrifice them altogether, or destroy part of their life by cutting off the nutrient supply to their interior, and in this way and condition retain them.

One of the greatest objections to the destruction of the dental pulp is, that there is subsequently, from the greater periodontal demand, and hence increased vascularity, a direct tendency to periodontitis which frequently terminates in suppuration and alveolar abscess, with the occasional production of a sac on the extremity of the root or roots of the tooth, which becomes filled with pus, and if this can be discharged by the formation of a passage through the bone, &c., to the surface of the gum, or sometimes exterior of the face, through a fistulous orifice, it will be relieved for the time, and all the violent symptoms subside, but only temporarily, for from the slightest exposure the inflammation, which is only passive or subacute, will again become active, and with the same result, or even increased to such an extent that, from the pain and discomfort of the thing, the tooth is ultimately obliged to be sacrificed. By proper precautions,

however, this result may be prevented, viz: 1st. By destroying or allaying all sensibility or irritation before the application of the escharotic by means of anodynes and astringents; and 2d. Before the narcotic and other influence has passed off, removing every thing previously from the cavity, cleansing it out perfectly, even to the exposure of the pulp if possible, by applying a compound of anodyne and caustic.

The best escharotic for the purpose is *arsenious acid*, prepared by rubbing it up thoroughly with *oil of origanum*, adding either *aconite* or *morphia*, so that there will be a complete admixture of the caustic with the anodyne; the oil acting as a vehicle, although it is said of itself to be useful in odontalgia.

This is the general course and treatment which I pursue in treating and destroying the dental pulp, &c., though with, or in place of the morphia which is generally used, I frequently add or substitute aconite, it being a more direct and more powerful sedative, and also probably not being so incompatible with tannin as morphia.

Dr. White, however, it will be observed, uses morphia as the anodyne, and creosote as the vehicle; but the latter is of itself so disagreeable as to be objectionable, and as it is used only as the medium, we would preferably resort, as we do in exhibiting our remedies internally, to something more pleasant and aromatic, which properties the origanum possesses to a great degree.

In my own practice I differ from Dr. White in some respects, believing that I get better results, but in the main his is the best that I am acquainted with, in fact my own being based upon his, and from whom I gratefully acknowledge the reception of my first correct impressions upon the treatment of the dental pulp.

In the first place, if I can have the patient under my charge, after cleansing out the cavity as well as possible, I introduce a narcotic such as aconite (the concentrated tincture of aconite for instance) or morphia, and, if it is complicated with inflammation, tannin; at the same time closing the cavity with wax. After this has been in long enough to narcotize the pulp, from a half to two or three hours for example, I remove the wax, &c., and cleanse the cavity, then introduce the caustic compound with an additional quantity of the anodyne, closing the cavity as before, and allow it to remain in from three to six hours, when I remove

it, and, if possible, the dental pulp also; if this latter is not practicable, the cavity is permitted to remain open for the escape of the sloughing pulp. If there should be any tendency to periodontitis, I re-introduce the anodyne and astringent; and also, if necessary, scarify the gums to correct and subvert this tendency, and prevent the inflammation, &c.

The force of the objection to the use of wax over the cotton to close the cavities, does not seem to be sufficiently great to prevent its use, as it can be easily obviated by the manner of introduction. And, again, it would appear to be better than to leave the cotton exposed, which will absorb the poison, and if it will escape sufficiently to act on an adjoining tooth, it most certainly will to be diffused throughout the mouth and thus introduced into the stomach; therefore, as a means of avoiding the possibility of such an occurrence, the use of such substances would be preferable.

In most cases I do not fill the tooth for one or even several weeks subsequently, or until all the tendency to, or periodontal inflammation has disappeared.

It will be observed that I do not leave the caustic preparation in so long as Dr. White, my reasons are that I do not find it necessary, as I use a larger quantity of the escharotic and narcotic, and hence destroy the nerve or pulp in a shorter time, on the well established principle that small quantities of these remedies act more as an irritant or excitant than as an escharotic or sedative, just the same as if they are used on any other surface of the body. Thus, for instance, if a small quantity of arsenious acid be introduced into the stomach, it will irritate and inflame the mucous membrane, which may ultimately terminate in destruction and disorganization, accompanied with prolonged distress, &c.; but if a large quantity be applied to mucous or other surface, the death of the tissue is rapid, without the intermediate stages, or if so, of very short duration, thus producing the disorganization of the part in a comparatively short time, without prolonging the accompanying pain and distress. And again, large quantities destroy the vitality so rapidly, as to retard and frequently entirely prevent absorption, whilst small quantities are more readily absorbed. In the time above mentioned, the preparation should be removed with the pulp if possible, as the destruction may proceed so far as to cause the immediate or ultimate loss of the tooth.

Arsenious acid is however not strictly an escharotic, as will be seen on referring to the U. S. Dispensatory, page 22, in which it is stated that "*Arsenious acid, when it produces the death of a part, does not act, strictly speaking, as an escharotic. It destroys the vitality of the organized structure, and its decomposition is the consequence. The true escharotic acts chemically by decomposing the part to which it is applied, and the loss of life follows.*"

In the majority of instances, however, you cannot have the patient at your disposal, therefore more caution must be exercised in the use of escharotics, and the better plan in such cases will be, after cleansing the cavity well, to introduce a larger quantity of the anodyne, but not so much of the caustic, and sometimes but rarely the astringent, and then close the cavity carefully with wax, at the same time requesting the patient to remove it in six or eight hours under the penalty of losing the tooth, cleansing it and the mouth perfectly, reintroduce the wax, and come to see you the next day. This will depend somewhat upon the intelligence of the patient with whom you have to deal; sometimes it being sufficient merely to remove the wax, &c., cleanse the mouth, &c., without any more attention. In most of such cases, however, the quantity of the caustic should be graduated to prevent the possibility of subsequent injury from the ignorance or carelessness of the patient.

The period of the day for the institution of this treatment, as Dr. White properly remarks, is of great importance, the morning being preferable. Thus applying the anodyne and astringent at night, and early the next morning the anodyne and caustic.

The development of the teeth is another very important point with regard to this operation. If they are not fully formed, the attempt to destroy the pulp should never be made, as periodontitis is almost a certain result, and of course, in consequence, the subsequent loss of the organ operated upon. In many such, and in all cases where it is not advisable to destroy the nerve, yet it be desirable to retain the tooth, if only for a very limited period, the anodyne and astringent will generally palliate and frequently cure.

There are also other things to be taken into consideration respecting the modifications of the above mentioned course of



treatment, viz.—the age, sex, temperament, &c., which are so obvious as to be scarcely necessary of mention, yet are so important as to require special attention.

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For the Dental News Letter.

### EPULIS.

*Messrs. Editors:*—The disease known as Epulis, derives its name from its position upon the gums, and not from any peculiarity in the structure or appearance of the morbid growth. Tumors essentially the same occur in other parts of the mouth, with this difference only, that they take on in some degree, the appearance of the tissues in which they are located. Of the various causes giving rise to this affection, we can only say, that they are but imperfectly understood, for while some may be readily traced to the irritation caused by a diseased and dilapidated condition of the teeth, other cases occur, which after the closest scrutiny we are forced to attribute to some peculiar idiosyncrasy of which we know nothing, any attempt therefore to classify the different varieties according to the causes from which they spring, must necessarily be defective. The most common variety is that which presents a soft and fungoid appearance, occupying a position upon the gums, between the teeth, or sprouting up through the pulp cavity of a decaying root. This form may be appropriately denominated fungous of the gums, and occurs most frequently where there is a tendency to a relaxed and spongy condition of the gums, it is usually found to depend upon local irritation for its existence, and this suggests the treatment to be pursued.

One of the most obstinate diseases to which the gums are subject, is a tumour similar in appearance to the one last named, but distinguished from it by a disposition to ulcerate and bleed, discharging a fetid ichor, and accompanied with pain of a lancinating character. This is true cancer, and calls for extirpation with all the parts to which it has formed attachments. A third variety, which we shall mention is a tumour much firmer in structure than either of those already noticed; it is distinctly fibrous, and most frequently originated within the sockets of the teeth, though by no means confined to them. It is a fibrous tumour of the bone or periosteum, and may be met with on either the superior or inferior maxillary bones, occasionally on the

palatine processes of the former ; its fibres are most dense at the centre, and not unfrequently show a disposition to ossify, while towards the circumference it presents a soft and lobulated appearance. This variety is found to appear without any appreciable cause, and may degenerate into malignancy. The fourth and last variety of Epulis we shall notice, is decidedly malignant, though fortunately of rare occurrence. In its first stages it is but slightly vascular, with a rough and indurated surface, accompanied with acute lancinating pain. It sometimes remains in this condition for a number of years before it assumes its most alarming aspect, but sooner or later the bones become carious, the tumour softens and is interspersed with fungi, a fetid, purulent and bloody discharge is set up, the constitution gives way, and death puts a period to the sufferings of the unhappy victim. Epulis may be readily distinguished from affections of the gums produced by the use of mercury, from scorbutis, or ordinary inflammation of the mouth, by a well defined line which marks the growth as foreign, no matter how intimately connected with the gums it may be, whereas in the latter conditions the tumefaction resides in the proper substance of the gums. Another distinguishing mark is the resistance they offer to the means ordinarily employed to subdue inflammation. Epulis may be originated within the alveolus of a single tooth, or a number of teeth, and this too while the teeth are in situ and perfectly sound, as the history of the following case (of which the writer was the subject) will show. About the middle of the year 1848, I discovered a recession of the gum from the neck of my second left inferior molar, and supposing that the presence of caries on the buccal surface had induced the gum to recede and ulcerate, I submitted my mouth to the inspection of a dentist, but failing to receive any satisfactory information from him, it was suffered for a time to take its own course. Some months afterwards, the breath became offensive, which led to the discovery that one or more fistulous openings had formed between the roots of the tooth and alveolus through which was constantly discharged a thick, and apparently laudable pus, which occasioned a fetor when allowed to remain in the mouth for any considerable length of time. The supposition that the tooth was carious, proved to be erroneous ; it was perfectly sound, and to all appearance healthy. It now became loose and

longer than any of its neighbors, which I very naturally attributed to inflammation and thickening of the periosteum investing the roots, but in this I was again mistaken, as will be seen in the sequel. The difficulty in forming a correct diagnosis may be attributed in some degree at least, to the fact that the tooth was in my own mouth, and farthest posterior, which placed a thorough examination on my part, entirely out of the question. The process of mastication now became painful; eat as I would, the troublesome tooth was constantly coming in contact with its antagonist before the others met, and this was followed by intense pain, which gradually subsided to be renewed again at the next occlusion of the jaws; the pain differed from toothach in that it was deeper seated in the jaw, and of a peculiar gnawing description, occasionally lancinating, but entirely free from the throbbing sensation attending an inflamed pulp, or the formation of alveolar abscess. With the aid of a mirror and strong light, I made a final effort to find out the cause of the trouble; the soft parts around were exceedingly sensitive, and in addition to the pus which oozed from between the tooth and socket, blood came freely on the slightest touch, and now for the first time I discovered the presence of two small tubercles which appeared to have sprouted from within the alveolus. This at once revealed the character of the disease, and determined me to have the tooth immediately removed. The operation was performed by my friend and neighbor Dr. Parry, who, after luxating the tooth, laid it over to one side by lateral pressure, and fortunately for me, by this means bit out, as it were, the entire morbid growth between the roots, to which it firmly adhered. It was found to occupy the entire space between the roots from their apices to the point of bifurcation, and bulging out on either side, it almost surrounded the tooth, sending up prolongations which appeared above the gums. It belonged to the variety previously designated as fibrous, the hard and fibrous portion occupying the centre, while outwardly it presented a beautiful lobulated arrangement, of a pale pink color, not unlike one of the salivary glands. The artery by which it was supplied was of considerable magnitude, and the hemorrhage which followed, profuse; the parts from which it was removed speedily took an healthy action, and no indications of a reproduction has since appeared.

J. McCALLA, D. D. S.

For the Dental News Letter.

## OBTURATORS.

*Messrs. Editors* :—Notwithstanding the antiquity of the date of the first construction of palatine obturators and all the multiplied improvements and ingenious contrivances which have been made, down to the present day, still all does not suffice to relieve or meet the varying circumstances and inconveniences arising from the fissures or perforations of the palatine arch, or floors of the maxillary sinuses, without involving in their turn or use, some evil consequence to adjacent parts, or annoyance to the patient. Therefore, not a grain of experience or information, attained by any one laboring in the field of professional usefulness, should be withheld from those winged messengers that make their periodical visits throughout the land—the journals.

In view of this, allow me to communicate through your valuable journal, a description of a small instrument, which is being used successfully as an obturator, in a circular opening or foramen in the roof of the mouth, or palatine arch. I will style it, for convenience of description, a *stud*.

First obtain an impression of the palatine arch with wax, as if a plain plate only were to be fitted over the orifice in the ordinary way. Then stamp a thin plate of gold, with metallic castings, to extend beyond the margins of the orifice about a quarter of an inch in every direction. When this plate is fitted against the palatine arch, a ball of white wax or cement is attached by heat to the convex surface of the plate, sufficiently large to fill the orifice or fissure,—as the case may be,—and long enough to reach through the orifice and be on a level with the plane of the inferior naries, and in such a position as to allow the plate to fit perfectly to all the parts. Now make a cylinder of gold exactly the size of this piece of wax, and solder it to the plate in the same position the wax occupied, and then tried in, to be sure of all being right thus far. When this is accomplished, place upon it another cylinder or air chamber, the shape of a partially flattened bullet, and as much larger than the first one, as the orifice can be enlarged by gentle pressure. This second cylinder is now soldered to the top of the first, and when the instrument is properly polished, it is ready for use.

The whole presents a similar appearance to a common door

knob, with a light projecting rim from the neck. When this knob is pushed through the opening, the elasticity of its margins will cause it to contract up to the neck of the stud, and have the effect of holding the plate against the palatine arch, and the knob against the floor of the nares, and effect so complete a closure of the orifice, as to prevent the possibility of any substances of food, or even air, escaping through. If the instrument is constructed of light material, it will not exert sufficient pressure to produce absorption of the upper margin of the orifice; and as it is not expansible like the sponge, it will not enlarge the opening by direct lateral pressure, and as it does not leave the *cul de sac*, as does the plain plate, merely fitted over the opening, or absorb the mucous and fluids of the parts, as the sponge, it does not require to be removed so often as those appliances, and thus in a great measure is the liability to enlargement of the orifice avoided by not demanding a renewal, or removal for the purpose of cleansing.

The general methods known to the profession, for securing these contrivances, are to fasten them to the teeth of the superior jaw, or by spiral springs to the inferior, but, from the rapid destruction of the teeth, in most cases, by bands, those methods are objectionable, and should always be avoided if possible: for when the teeth are gone, the same thing must be done, that should have been done at first, and when, for want of teeth to support the contrivance, the case is abandoned as hopeless.



a. The neck.  
b. Platina plate.  
c. The knob.

The case which the accompanying cut represents, is one where bands had been attached for many years to the superior teeth, until all were destroyed excepting the incisors and cuspidati, which would not support the plate. Then the sponge was used, which answered but imperfectly, and was uncleanly

and disagreeable, in many respects. This contrivance has now been worn for nearly two years, and does not seem to excite absorption of the margins of the orifice, neither do I think it will, as there is no pressure laterally when the instrument is in its place; and it is not found necessary to remove it every day for the purpose of cleansing.

The lighter this instrument can be made, the better; for, if the

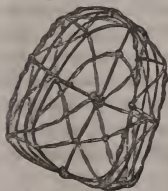
plate which covers the roof of the mouth fits properly, it will remain by atmospheric pressure, and thus avoid any downward tendency.

J. D. WHITE, M. D.

October 2, 1850.

### PREPARING PLATES FOR SOLDERING.

After the teeth have been suitably ground, and arranged to suit the mouth, being well cemented on the plate with beeswax, having a little rosin mixed with it to prevent the moisture from loosening them, a basket made of annealed iron wire, about the size of a small knitting needle must be had, of a suitable shape to receive the plate with the teeth all on. A piece of waxed muslin for the bottom, and a strip for the outside of the basket being placed tightly around, the basket is to be filled with plaster and sand of suitable proportion. Wet up rather thin, and the plate, with the teeth carefully stuck on, is to be inserted in the mixture so as to properly cover the teeth and plate, after trimming, warm slightly, and remove the wax, then dry evenly, and after that fit the lining to the teeth, letting them remain firmly in their place. To fit the linings with ease, cut the gold in a strip, put a little beeswax on one side, and press it against the pins to show where to punch the holes; cut off the lining, fill it to shape, countersink the holes, place it on the tooth, cut off the pins nearly even with the face of the lining, and with a small wedge shaped chisel, split and spread the heads of the pins; to fasten the lining to its place when the work is soldered and allowed to cool, place



it slowly in water to soften the coating, when the plate may be removed, and the basket saved for further use. The accompanying drawing shows the form of the basket which may be made open in the centre if desired for the under plate, but I think it best to have the wires extend across the inside, as shown in the drawing.

Such, gentlemen, is my experience; I give it cheerfully to the profession for their consideration. Yours respectfully,

CORYDON PALMER.

Warren, Ohio, July 15th, 1850.



For the Dental News Letter.

## CURIOSITIES OF DENTISTRY.

*Messrs. Editors:*—In continuation of the above subject, permit me to give you a few more items.

A professional friend from the South told us the following:—

A gambler, in following his profession, chanced to come across a dentist, and after winning all his money, offered to play for his case of instruments, which was agreed to, and resulted in the dentist losing them also. The gambler shortly after met with more than his match, and lost all he had but the instruments. With these, however, he determined to try his luck at dentistry, and pushing along to a small town, probably in Alabama, took a room and hung out his “shingle.” A couple of days elapsed before he had a call; but he concluded “things would take a turn soon,” and soon they did; for on the third day, a negro came in a great hurry to his door, with a message for the “Dentist” to come to Mrs. ———. He rolled up a few extracting instruments, and presented himself at the appointed place, when he was requested to examine a tooth in a young ladies’ mouth; being told it had ached very badly, and they wished him to advise what should be done with it. We must here say, in justice to our hero, that he was a man of good education and fine address, and had all the appearance and manners of a gentleman. He proceeded accordingly to examine the tooth, and found it to all appearance, a sound, healthy organ. He was completely at fault, and did not know what to say, and endeavored to the best of his ability to think of the word “*enamel*.” He felt, as he afterwards expressed it, “*like a cat in a strange garret*.” The lady was awaiting his opinion with all anxiety depicted on her countenance. When, finding that he must say something, he blurted out, “Why, madam, the tooth has lost all its “*animal*.” This he declared was the nearest he could come to it, and that it was his first and last case, as he quitted the profession immediately afterwards “in disgust.”

Another case is that of a gambler and dentist combined; but losing all his money, sought a purchaser for his instruments. He came across a rough fellow, a carpenter; and after praising his fine developments, and assuring him he had just the right kind of a head for a dentist, succeeded in selling him the case at

about double the cost, and left him by saying, "No study is necessary to become a dentist; push on and you will succeed."

Push on he did, and the first case he had was that of a man who had a tooth diseased at the fang; after examining it, he told his patient that the tooth had a *worm* in it; and to prove his diagnosis correct, he recommended its extraction at once, which the patient submitted to, and the tooth was removed; after which the dentist split the tooth and exhibited the nerve, which he called a worm, in proof of his assertion. The last we heard of him, he was endeavoring to discover a *vermifuge dentis*.

A lady leading a child by the hand called upon a dentist of my acquaintance, a short time since, and requested to know if he operated upon the Caldwell principle, by cutting the ligament. She stated, that in the absence of Dr. Caldwell, she was compelled to find some one who could operate upon his principle. The dentist replied that he *could* operate upon the same principle. The lady then wished a tooth extracted for her little daughter; accordingly the child was placed in the chair, and on examination, the tooth was found so loose, that it could have been extracted without an effort; but our friend was shrewd enough to know, that if he had not pretended to have cut the ligament, the operation would have been unsatisfactory. He therefore took his penknife and severed the remaining slight attachment of the tooth to the process, and turning to the lady, said, "I have cut the ligament, the tooth you see is perfectly loose, and can be taken away with the fingers," which he accordingly did to the admiration of the lady, who declared it was the most perfect operation she had ever beheld, and scientifically performed, and promised to recommend him to all her acquaintances. And now for the conclusion. "How much is it, sir?" said the lady. "One dollar," replied he. "Is not that high?" "Not high when performed upon the Caldwell principle."

A couple of youngsters of our early acquaintance, took it into their heads to study dentistry, enticed no doubt by the apparent ease in securing a competency, as they thought it a "money making business." Well, they called upon a dentist to make inquiries as to time and the amount of fee. The dentist (!) replied, that he could learn them in *four weeks*, at a charge of *thirty dollars* each. We thought then the charge was exceedingly moderate,

but since we learned his abilities we think, nay, know, that it would have been outrageously extravagant.

MORAL. Cheap dentistry, as well as cheap teeth, we have found very expensive. Yours, R.

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For the Dental News Letter.

*Messrs. Editors:*—I wish some of your contributors would inform the profession, through the "LETTER," of the best method of fastening blocks to the plate. I have tried soldering, and riveting in several different ways. For a few months past I have practiced the following method, and prefer it to any other with which I am acquainted. Let each tooth of the block have a hole of the usual size through its entire length, without being counter-sunk on the grinding surface. Platina rivets, somewhat shorter and smaller than these holes, are then to be soldered to the plate in their respective positions; the blocks are then easily slipped on to the plate, and are to be fastened in the following manner: make a cement by taking two parts of sulphur, by weight, and one part of pulv. felspar, mix them together in a small crucible, and melt them slowly over a spirit lamp until they are thoroughly incorporated, and the mass has slightly changed to a reddish color; now remove the crucible from the lamp and place it in a cup of charcoal, to prevent its cooling. Be careful that the sulphur does not *burn*, if it should, it will destroy the cement. Now heat the plate and blocks gently by the lamp, and then place them upon a *dry* plaster cast; with a small instrument of wood or steel put some of this melted cement between the blocks and plate, and press the former firmly down upon the latter, holding them there until the cement hardens, which will require but a moment. The blocks are now firmly fastened, small spaces between them and the plate obliterated, preventing entirely filthy accumulations, and making plate and blocks one solid piece of work. After this is done, press firmly around the rivets small splinters of seasoned hickory, so as to fill entirely the space around the platinas; then with gold foil make a solid and handsomely furnished plug above the rivets, filling up entirely the holes in the blocks. The plate should be cleaned *before* putting on the blocks, as, after they are fastened in this way, it will neither do to put them into acids or the fire. One great advan-

tage in confining blocks in this manner, is the facility with which they may be removed when desired. Another is the rapidity with which a set may be fastened in this way, requiring, as it does, but little more time than I have taken in communicating the method. If any of your readers have a better way, I hope they will let it be known.

*Use of Ether in filling teeth.*—Do the profession use sulphuric ether in filling teeth? I have used it since its first introduction into dentistry, but know of no one else who uses it for this purpose. If the teeth are very sensitive, dip a pellet of cotton in sulph. ether and place it in the cavity; do this repeatedly, until the sensibility is lessened, or entirely removed. If there are several cavities to fill, prepare them all in this way, excavating a little from each one by turns—keeping all the rest soaked with ether. In this way I have filled the most sensitive teeth *without* pain, and even when the nervous pulp was exposed.

*Gutta-percha.*—In filling a tooth having the live pulp exposed, I place a very thin piece of gutta-percha over it before introducing the plug. It is a bad conducting substance, very indestructible, and prevents inflammation and consequent pain in the pulp. A great deal of successful experience in these modes of operating have given me unshaken confidence in them.

H. S. CHASE, M. D.

Woodstock, Vt.

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For the Dental News Letter.

### CHLOROFORM—ETHER, ETC.

Chloroform and Ethers are probably more extensively used in Boston and vicinity than in any other part of our country, and instances of unpleasant effects resulting from their use seldom occur.

Here they were first extensively introduced as anæsthetic agents, and experience shows that no fears need be entertained by operations on patients in the majority of cases. Often due caution is not observed in obtaining a pure article for inhalation; and the frequent complaint that it is impossible to bring the subject sufficiently under their narcotic influence to operate successfully, can be traced to this cause.

Their extensive use here have stimulated manufacturers to use

their utmost exertions to furnish pure articles, of uniform strength.

The concentrated chloric ether has been more recently introduced, and consequently is less known to dentists, but still is a good article.

A superior quality of all these articles, as well as Dr. Warren's Concentrated Chloric, used by surgeons at the Massachusetts General Hospital, may be obtained of J. R. Spalding, 23 Tremont Row, Boston.

F.

Boston, Sept. 1850.

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For the Dental News Letter.

### FORCEPS FOR EXTRACTING LOWER MOLAR TEETH.

*Messrs. Editors:*—Having experienced some difficulty in extracting lower molars, at least in adjusting the instruments upon them, from the peculiar position they occupy in some mouths, I have been led to modify my forceps, until they have arrived at the shape represented in the above drawing, which I find to be a great improvement, enabling the operator to see both points of his instrument at the same time from the inside of the jaws, and allowing him to place them with more certainty between the roots, where they meet the alveolar process. The forceps



were made by Mr. Morson, and have his improved points, which are so formed that in many cases, by the pressure of closing the handles alone, the tooth is forced from its place before the patient is fairly aware that the operation has commenced. I need not add that the general finish of his instruments is of the best character, and that their temper is incomparable.

Yours, &c.

Brooklyn, N. Y.

R. G. HOLMES.

P. S. I forgot to add that the swell on the sides of the jaws assists materially in holding the cheek of the patient away while adjusting the points, and thereby giving a more uninterrupted view.

# THE DENTAL NEWS LETTER.

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OCTOBER, 1850.

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As we promised in our last number, we commence this—fourth—volume with an increased number of pages, or thirty-two to the number, making one hundred and twenty-eight to the volume. This gives us more respectability in point of size, and affords additional room for correspondence and usefulness, a fact which we hope our professional brethren will bear in mind, and render their aid in sustaining the original department.

We feel warranted in this enlargement, from the favor with which the News Letter has been received and commended ; and the disposition manifested on the part of some—abundantly able—to contribute to its pages.

We can now boast of a larger circulation than any other dental periodical, in this or any other country, as we print an edition of twenty-five hundred copies. This, it will be acknowledged is no faint praise.

Our desire is, to publish a work worthy of the profession, that shall be a welcome and useful visitor, and that shall find its way into every section of our vast country, and indeed wherever the language is spoken,—already we circulate some four hundred in Europe. In the accomplishment of our purposes in this connection, we have to aid us, an extensive correspondence with the profession, besides a personal acquaintance with very many of them. In view, then, of these advantages, it is but fair to infer, that with the aid and good wishes of the profession—which we think we may depend upon—we can make the Dental News Letter all that could be desired.

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We had hoped to have received several promised original communications in time for this number, but have been disappointed. We shall receive them, with many others, we trust, in time for our next.

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We commence in this number the publication of a paper on Mechanical Dentistry, and expect to complete it in our next.



## SOLDERING FURNACE.

The above is the title given to a little article contrived to facilitate the soldering of whole or partial sets of teeth.

Its object is to save, almost wholly, the use of the blow pipe, and to prevent the liability of the teeth cracking by being heated up too suddenly. The construction is very simple, the lower part being a circular box of sheet iron, about  $3\frac{3}{4}$  in. in diameter, and  $1\frac{1}{2}$  in. deep, to the bottom of which is fastened a handle 6 or 7 in. long. The lid of the box is perforated, and is surmounted with a flowing ring or bowl of the same material as the rest, 2 in. high, which forms a place for the reception of charcoal. A draught hole is made in the side of the box, to allow the air to pass through the perforated lid.

To use the furnace, fill the upper part with small pieces of charcoal, on which place the work to be soldered; light the coal, and let it burn gradually until the work is nearly red hot, then fuse the solder with the blow pipe and spirit lamp, which requires but a very few minutes time, and allow the small remainder of coal to burn out, which causes the work to cool gradually.

Having been shown one of them operate, we were induced to order a lot, believing them to be a very useful contrivance, and a great saving of wind in soldering, as but a short blast with the mouth pipe is sufficient to flow the solder.

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NEW STYLE PLATINA PINS.

We have made an improvement on the forms or shapes of the platina pins which we now put in teeth. The end that is embedded in the tooth, is bell shaped, which spreads the end, and leaves a cavity in which the body or tooth material is compactly embedded, thus forming a complete dove tail. This we believe to be superior to the head, as it avoids so much platina in one spot, thus rendering the teeth less liable to crack from the expansion of the metal in heating, and the attachment of the pin to the tooth is stronger from the spreading of the edges of the pin.

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*Steam Soldering Lamp.*—We have received an article of this kind, which works well, and can be sold for four dollars.

We have had manufactured a large lot of Malleable Iron Ladles for melting, of improved shape and various sizes.

W. A. F. is informed that his communication was received, but the article described, is in use by many of our dentists. Others use a small saw, and file cut wheels in their lathes, after the same principle, and for the same purpose.

We would be pleased to hear from him whenever he has any thing of interest to communicate.

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*Patent Blow-pipe Lamps for melting metals.*—This is a new article for melting zinc and lead for casts, and other purposes. It is a small copper vessel with a chamber surrounding it, and a tube from the chamber or boiler passing up from the bottom of the vessel. Alcohol only is used, which is put into the boiler, also some in the bottom of the vessel. The last is ignited, and from the heat of which, steam is generated in the boiler, and driven through the tube directly upwards against the bottom of a ladle which contains the metal to be melted, and rests upon a sheet iron frame which encloses the lamp. The vapor, as driven off, is ignited by the burning alcohol in the bottom of the lamp, and the flame is thrown with great force and heat against the ladle.

It will melt zinc in about six minutes, and lead in two. It is much cleaner, and no more expensive to use than a charcoal fire.

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*A case of Malpractice.*—A friend in the interior of New York State, has sent us a specimen of the first and second molar teeth of the left upper jaw, connected by a large piece of the process; all of which were extracted by a dentist, whose name we will not mention. It seems the intention was to extract the first molar, which is somewhat decayed; but, in removing it, the second molar, with the process surrounding them, and that also covering the wisdom tooth, which was deeply seated, came away; and after fracturing the process, in order to remove the portion, took his penknife and dissected it out. A key instrument was used, and we are satisfied as to the amount of power applied from the specimen before us.

The patient remarked, after the operation was performed, that "he thought the day of judgment had come;" and well he might.

It is a matter of rejoicing, that such occurrences are rare, considering the many bunglers there are at it.

## ANIMALCULES ON HUMAN TEETH.

Dr. H. J. Bowditch, of Cambridge, Massachusetts, states as the results of many microscopic examinations of the accumulations on the teeth of healthy persons, that of 49 individuals, most of whom were very particular in the care of their teeth, animal and vegetable products were found in every instance except two. In those cases the brush was used three times a day, and a thread was passed between the teeth daily. Windsor soap was also used by one of these two persons, with the brush. Dr. Bowditch tried the effect of various substances, in destroying the animalcules, and especially tobacco, by which they seemed to be in no way incommoded. Soapsuds and chlorine toothwash invariably destroyed them.

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☞ It is currently reported in Philadelphia, that Dr. L. Koecker, of London, has deceased. We were aware that his son had gone to London, in consequence of the sickness of his father, and therefore are disposed to think the report true.

With the merits of this gentleman, his prominence and labors in the profession, all are familiar, and require no mention from us.

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*Eleventh Annual Announcement of the Baltimore College, and the Sixth of the Ohio College of Dental Surgery.*—We are in receipt of the above pamphlets, and from a glance at them, we notice that the Colleges are both in a flourishing state. We hope they will be ably sustained, as those who are at their head are all able and efficient in their several positions.

See advertisement of Ohio College on cover.

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*Washington's Portrait.*—The critics have just discovered that neither Stuart nor Peale succeeded in giving the exact expression of Washington's mouth on their portraits. One painted him with a bad fitting set of artificial teeth, and the other without any.

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C. P. is informed that the reason why his first article did not appear, is, that we think a better plan has been adopted, which we expect to give in our next number. He has our thanks notwithstanding.

We regret to announce the decease of the following Dental practitioners. Drs. L. Roper of Philadelphia, J. Jones of Dayton, Ohio, and C. Blakeley of Havana, Cuba.

A correspondent of the New Orleans Delta thus notices the death of Dr. Roper, who was, at the time of his decease, on his return from California.

“He was generous and manly, high spirited and enterprising. He left in Philadelphia an idolized wife and daughters, and was returning to them with sunshine on his path, and happiness in his heart, when the destroyer arrested him. The moment he felt that he was seriously ill, he inquired if, in the crowd of strangers on board, there were any Masons, and immediately his bedside was surrounded by faithful and attentive friends. He died calmly, and the last words that trembled on his lips were: ‘My wife—my children.’ Ah! death is at all times a bitter cup, though the fainting head be held, and the dying lips be moistened by the tears of those we love. But to be called hence when these are all away—‘by *strangers* honored, and by *strangers* mourned.’—Oh! this indeed *is* death—this it is to *die*! His mortal remains were committed to the deep with the solemn ceremonies of the brotherhood. The white crest of the Pacific was his winding sheet, and its wild waves chant his eternal dirge.’

With Dr. Jones we were personally acquainted, and had an exalted opinion of his abilities and virtues. He was an ornament to the profession, and an honest man. With Dr. Blakeley, who enjoyed a very extensive practice, we had had considerable dealings, and always found him perfectly upright and trustworthy.

*Fusible Metal.*—The following receipt was given us by a superior mechanical dentist, who pronounced it the very best mixture he had ever tried.

Bismuth,	-	-	-	-	-	8 parts.
Lead,	-	-	-	-	-	5 “
Tin,	-	-	-	-	-	3 “

It will melt at about 200°, or under boiling water point. For male cast, use tin only.

*Principles and Practice of Dental Surgery.* By CHAPIN A. HARRIS, M. D., D. D. S. Fourth edition. Lindsay & Blakiston, Publishers: Philadelphia.—A fourth edition of this valuable work has been called for, and recently published. The whole work has been revised with great care, and some fifty additional pages added.

It enjoys, deservedly, the reputation of being the best work on the subject extant.

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*Valedictory Address delivered before the graduating class of the Baltimore College of Dental Surgery, at the commencement of the session of 1849-50.* By S. P. HULLIHEN, M. D. *Address to the Society of the Alumni of the Baltimore College.* By JAS. ROBINSON, D. D. S., of London.—These addresses are prepared with great care, abound with instruction, and are creditable to their authors.

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*Paper Tooth-Powder Boxes.*—We have just received a large quantity of these from Paris.

There has been considerable demand for an article of this kind in consequence of their neatness and low price. We can now supply all orders.

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*“Convulsions and death caused by the shortening of a tooth longer than the others.* A nun of Padua having had a tooth shortened in order to get rid of the deformity, died immediately in an epileptic convulsion. A small fragment of nerve was discovered in the section of the tooth.”

This case and others which fortunately have not terminated so seriously, should be a warning to all operators upon the teeth, not to inflict *sudden and violent pangs*. Experience shows us that a great amount of pain can be endured, if slowly and gradually inflicted, while instinct teaches us all to dread sudden pangs, even of more moderate intensity. Even in extracting a tooth, it is better to operate gradually rather than to wrench it out with a sudden and violent effort. If pain be gradually inflicted, the nervous system, conscious of the coming trial, summons up all its powers of endurance; but when taken by surprise, the shock is severely felt and the consequences may even be fatal, as in the case just quoted.—*Jour. Dent. Science.*

## REPORT OF PROCEEDINGS OF PENNSYLVANIA ASSOCIATION OF DENTAL SURGEONS.

A stated meeting of the Association was held Oct. 1, 1850. The President, Mr. C. C. WILLIAMS, in the chair, and Mr. A. R. JOHNSON, Secretary.

On motion, the regular order of business was suspended to go into an election to membership, when Messrs. J. McCalla and J. Stovell were elected. Committee on premium teeth reported that they had attended to their duties, in procuring and presenting to Jones, White & Co., the gold medal awarded by the Society, and ask to be discharged, which was done.

The Librarian was requested to furnish a report for next meeting of the Association. Treasurer's report read and accepted, and a committee to audit his accounts reported them correct.

The Treasurer was instructed to collect all moneys due the Association.

Dr. J. McCalla, by request, read an essay on Epulis, (which will be found in our pages.) Drs. Parry, Beale, and Mr. Williams made some remarks on the subject of the essay, giving various cases which had come under their notice and treatment, and all recommending the actual cautery.

An essay on the Decay of the Teeth, from Dr. Jas. Parry, was now read.

On motion of S. L. Mintzer, the resolution offered at a previous meeting to reduce the initiation fee from ten to five dollars, was now taken up, and after considerable discussion, in which it was shown that many worthy young men were kept from joining, in consequence of the amount of the fee, was carried.

Jones, White & Co. presented the Association with vols. 1, 2, and 3 of Dental News Letter, also a specimen of a malpractice, in the shape of two molar teeth, in the extraction of one of which, the other, with a large portion of the process was brought away.

Dr. E. Parry presented the Association with a small instrument for holding needles for the removal of the nerves of teeth, a neat and convenient article, for all of which the Association returned thanks.

This being the meeting for the election of officers, the following were elected :

President, C. C. Williams; 1st Vice President, S. T. Beale, M. D.; 2d Vice President, C. Moore; Recording Secretary, J.



D. White, M. D.; Corresponding Secretary, J. H. McQuillan; Treasurer, F. A. Reinstein; Librarian, S. S. White; Examining Committee, Ely Parry, M. D., J. D. White, M. D., S. T. Beale, M. D., T. L. Buckingham, and S. L. Mintzer.

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*Case of Disarticulation of the Left Condyle of the Lower Jaw, with Excision of nearly the Left Half of the Bone, on account of a very large Cartilaginous Tumour growing from and occupying the site of all this part of the Bone, save the Condyle and Neck.* By W. R. BEAUMONT, Professor of Surgery in the University of Toronto, Canada.—This patient, a child, aged seven years, was admitted into the Toronto Hospital, September 17, 1849. The tumour on his admission extended upwards to the zygoma and malar bone, almost covering the temporo-maxillary articulation; it reached downwards to fully an inch below the angle of the jaw, extending inwards into the mouth as far as the mesial plane backwards, beyond the ramus of the jaw, and forwards to the posterior bicuspid. It pushed the tongue quite to the right of the mesial plane, concealed the velum, and almost completely filled the isthmus faucium; the molar teeth of the upper jaw were deeply imbedded in the tumour, which kept the mouth at all times open, with a constant dribbling of saliva, the upper and lower incisors not meeting by fully half an inch. The tumour had been first observed three months back—September 25th, 1849. Professor Beaumont performed the operation for its removal, commencing by making a curved incision (the concavity upwards,) extending from the lobule of the ear to the angle of the mouth, dissecting off the integuments from the tumour. The tumour was firmly wedged in under the malar bone; the outer wall of the jaw was cut vertically through with a small straight saw; the section was then at one stroke completed with a strong bone forceps; the condyle was disarticulated by being firmly grasped in a forceps, the joint being opened by dividing the external lateral ligament and capsule. The patient did very well; a small salivary fistula was formed in the cheek, which eventually healed on December 1st, 1849. The patient was quite well. The right half of the lower jaw was drawn a very little towards the left side, about the eighth of an inch; the external cicatrix was a mere line.—*London Lancet.*

# THE DENTAL NEWS LETTER.

Vol. IV

JANUARY, 1851.

No. 2

For the Dental News Letter.

## MECHANICAL DENTISTRY.

BY T. L. BUCKINGHAM, DENTIST, PHILADELPHIA.

(CONTINUED.)

After punching, cut the lining off the proper length and place it on the tooth. When all the linings have been punched and cut off, they should be filed to the shape required.

Some operators make the linings round on top, some square, and some oval on the outer surface; but, let the shape be what it may, they should all be of a length, and present an uniform appearance. When all are arranged they should be taken off, commencing at one end, and laying them in a row with the side up that goes next to the tooth; then put some borax on each lining and also on the pins of the teeth; then replace the linings on the teeth, and with a sharp graver split each pin and wedge apart so as to bind the lining close to the tooth. The reason for placing borax between the linings and teeth, is, to aid in flowing the solder through the holes to the backs of the teeth. I have often found that when there was no borax there, the solder would only flow over the ends of the pins, and when I filed the solder off, the lining could be easily drawn off the tooth.

When the linings have all been fastened in this way, we may proceed to solder the whole case at once; but as it is very hard to finish up a case, when the teeth have been soldered to the lining and the lining to the plate all at one heat, I prefer to solder the lining to the tooth first. Remove the teeth from the plaster and lay them on a piece of charcoal with the lining up, borax the lining and lay a small piece of solder on each pin and heat them up very gradually; blow a broad, gentle flame, and move the charcoal so as to make the flame play in a circle around the teeth without touching them at first; then gradually diminish the circle until the flame comes directly on the teeth; still keep

the charcoal moving until they are at a full red heat, then let the flame rest a moment on each tooth and the solder will flow. Great care should be taken in heating teeth; it should be done with a broad, steady, gentle flame. If they are heated with very fierce puffs of the blow-pipe, or with a jet of the flame, they are almost sure to break, and it is very annoying to have a tooth break when the case is so near done. When they are soldered, they should be covered at once with a piece of charcoal hollowed out, to protect them from the air in cooling. Now file the linings smooth and put the teeth back in their places in the plaster, but be careful that no pieces of plaster get into their places. When they are all in their proper position, mix some plaster and cover the points of the teeth as far down as the linings, which will keep them from being drawn out of their places in soldering to the plate.

If there be any places where the linings do not fit close to the plate, the space should be filled with small pieces of gold. Then borax well the joints to be soldered, and lay two or three pieces of solder on each joint. The solder now used should melt more readily than that used in soldering on clasps or linings to the teeth. The case is now ready for the last soldering. Commence blowing on the outside of the plaster, and move the charcoal so as to heat the plaster evenly all around; when the plaster is red hot on the outside, then bring the flame in on the plate and keep it moving from side to side until it is of a red heat, then let the flame rest on each tooth until the solder flows.

In soldering, the heat should be applied very gradually and steadily. The habit of using the blow-pipe properly is soon acquired, if we do not hurry too much. The difficulty in most cases is, that we blow too hard at first, and the lungs become exhausted before we are half through; while, if we would blow gently, and when we found the lungs becoming exhausted, would stop and take an inspiration or two, we could get through without difficulty.

After the case is soldered, it should be let stand in the plaster until it is perfectly cold, for fear the cold air coming in contact with the teeth while hot should break them. After being removed from the plaster, the case should be boiled out in some diluted sulphuric acid for a few minutes; the teeth, however, being put in the acid before it is warmed. Where there is time

to wait, let the case lay in the cold acid for thirty minutes; this removes the borax and fire-coat from the plate. Then, with a graver or scraper and files, finish the case up as smooth as possible; then with a strip of scotch-stone, stone all the file and other marks and scratches out of the plate, keeping it wet while stoning; then wash all clean, and burnish with steel or blood-stone burnisher, using soap and water during the operation; I prefer, however, to polish with a brush-wheel on a lathe, using sweet oil and tripoli or rotten stone; then with a buff-wheel about the size of half a dollar, made of two or three thicknesses of hat-felt or thick buckskin, polish the plate all over where the buff will touch, and where it will not touch use a pointed stick covered with soft leather; then brush it again with the brush-wheel, and wash clean with soap and water; then with another buff-wheel made of soft buckskin on which use rouge, polish your plate well till you have a beautiful gloss; wash off the rouge and dry the case with chamois leather or a soft napkin, or, what is better, cover the whole up in some dry saw dust for an hour or so, which will absorb the moisture without injuring the polish. The case is now ready for the mouth.

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For the Dental News Letter.

### ATMOSPHERIC PRESSURE.

BY JAMES FLEMING, M. D., HARRISBURG, PA.

There are some difficulties which lie in the way of our proceeding for the insertion of entire substitutes upon the above principle, which appear to be quite overlooked. Some of these I consider of very great importance; especially one, which I will first mention, and which lies at the foundation of the whole matter. It consists in the fact that a substance which is capable of taking a true impression of the gum, cannot be removed therefrom without more or less *distortion*, unless atmospheric pressure be taken off; or, in other words, the *vacuum* which has thus been created be destroyed. I have nowhere seen a plan proposed which was directly intended to obviate this difficulty. It is true that *plaster*, if it be good, and kept in the mouth a sufficient length of time, (a proceeding which is not very agreeable to the patient, to say the least of it,) will harden sufficiently to allow of its removal with but little if any *swagging*. But how can it be started, if it

be perfectly *true*, without first moving it and altering its face sufficiently to take off at least a part of the pressure? For be it remembered that fifteen pounds to the square inch is no trifle to overcome; and if there is not a yielding somewhere, the effect upon the gum itself would be pretty severe. It is obvious that if the plate, which is to have the exact form of the impression, is to be sustained with any considerable degree of firmness, the impression itself will be even more firmly held, if there be no yielding any where. Indeed, I am persuaded that a *perfect* impression can never be had, without taking off, in some way, atmospheric pressure, so as to allow of its easy withdrawal.

I have, for five or six years, been in the habit of adopting a very simple plan for obviating the above difficulty. And I believe that any one who will once test its utility, will not again omit using some means of the kind for the purpose alluded to. A few days ago I was trying a plate in a lady's mouth, which I had just prepared. After I had directed her to exhaust the air from under it, by suction, the effort which it took to remove it quite alarmed her, and she asked me, in all sincerity, "Is there any danger of its getting so fast in my mouth that I can't get it out?" This plate was prepared without an *air chamber*. Of this, however, I shall hereafter speak.

*To take the impression of the mouth*, I consider *bees-wax*, when well managed, the very best material that can be used. I have seen it stated that it will sometimes stick to the mouth. This, I apprehend, is a mistake. It should not of course be used too soft. And it is much better to warm it at a fire, or over a spirit lamp, than in hot water. As to its *sliding* over the mouth, the difficulty is very easily obviated. If firm and steady pressure be made *directly against the palatal arch*, the wax will receive the exact impression of that part of the mouth. Having selected a suitable wax-holder, (of which I have a variety, both in size and depth,) I place in it the wax, suitably prepared, and immediately perforate it through an opening previously made in the *holder* towards the centre of the palatal arch, and place therein a *tube*, which is barely long enough to extend through, both ways. When the impression is being made, this tube will press downwards, and will leave a complete opening through the whole, for the admission of air, so that it can be removed without any diffi-

culty and without distortion. Before doing so, however, it should be firmly held with one hand, while, with the other, pressure is gently made all round the margin. It should then be moved in a direction straight off from the gum, starting it first in front. The sides of the holder should always be high enough to guard the impression from injury, in withdrawal from the mouth.

Having thus obtained a perfect impression of the mouth, there is another fact which must not be lost sight of at this stage of the proceeding, in order to obtain a *true model* therefrom. Wax will contract in cooling; and as it will be of different thicknesses at different points, after the impression is made, so will the degrees of contraction be varied over its surface. Hence, to prevent this effect, I make my *cast* at once, mixing the plaster with *tepid* water. In this way, I think there can be a nearer approach made to a perfect model of the mouth, than can be obtained in any other way.

As to the contraction which takes place in the *metal castings*, I think it is, perhaps, an advantage. The plate will be somewhat expanded by the heat of the mouth; but what is still more worthy of consideration, there is generally more or less absorption of the gum for a while after it has been inserted. And in this process, there is an adaptation of its surface to the face of the plate.

In *wedging* up the plate, great care should be taken to go no further than is necessary to bring it to the exact form of the model; as any *stretching* beyond this point will be certain to impair the fit.

*Central and Lateral Air Chambers.*—Although I have, until very recently, been quite in the habit of using these auxiliaries, as they are supposed to be, for the insertion of upper sets, yet I must say it was never without some misgivings as to the correctness of the principle. If a plate be perfectly fitted to the whole arch and ridge, it needs no such assistance to make it adhere firmly. Indeed, the only effect of them appears to be to destroy the *equality* of pressure, and thus *to take away much from the comfort of the wearer*, besides lessening, perhaps, the amount of adhesive power. The plan which I have most recently adopted, and which has given me more satisfaction than any other, is to



place in the plaster model, before making my zinc cast, a piece of very thin wax paper, cut into such a shape as to extend over what would be the *most solid portion* of the palatal arch, taking care not to come, at any place, to the edge of the plate. It should be as thin as card paper, and pressed firmly down upon the cast; the object being to allow of the ultimate contact of the entire plate with the gum. It was in this way that I prepared the plate alluded to above.

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For the Dental News Letter.

#### SALIVATION BY INOCULATION.

MESSRS. JONES, WHITE & McCURDY:

*Gentlemen*:—If the following case is of any interest, it is at your service:

Mr. J. Dalrymple, a farmer of superior attainments, about 35 years of age, called on me in October last, and wished me to examine his mouth and see if I could do any thing for him. On examination, I found his mouth in a very bad state, his gums very much swollen and inflamed, and discharging pus from around every tooth; the teeth all loose and sore. To my question whether he had been salivated, (as his mouth indicated a severe case of salivation,) he answered no; that he had never taken any calomel to his knowledge, and then made the following statement:—That about four years previous he was in Chicago, and thinking his teeth wanted cleaning, he called upon a dentist, but found him engaged, and waited till he got through with the patient, then took his seat in the chair. The dentist, after examining his teeth, proceeded to remove the tartar, but was so rough about it, lacerating the gums so much, that he complained of his giving him unnecessary pain. The dentist replied, that if he had such a mouth as the person for whom he had just operated, he might complain; and went on to say that that person would lose all his teeth in consequence of his having taken so much medicine. He left Chicago a few days afterward for Peoria, and by the time he arrived at home, his mouth was in such a condition that he could get nothing but fluids into it, the gums being so very much swollen and inflamed. Pus was formed and discharged in great quantities. When the swelling went down, his teeth were so loose that they could have been removed

with the fingers. His physician supposed he had been salivated. He gave him a wash for his mouth, which helped him, but did not restore the gums to a healthy state. On the slightest cold, his mouth would become worse.

This was the substance of his statement. When he came to me, he had lost about half of his upper teeth, and rather more of the lower, which had been removed or fallen out, all being perfectly sound, as were those still remaining, which I removed.

This case is similar to the one related by Mr. Keith in the third number of volume third of your News Letter, and I think it may be safely inferred that they were both cases of salivation by inoculation, and shows the very great importance of cleansing the instruments thoroughly after each operation.

Yours,

WM. PENN McMILLAN.

Peoria, November 2, 1850.

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#### REPLACEMENT OF NATURAL TEETH.

MESSRS. JONES, WHITE & McCURDY:

*Gentlemen*:—Should the following case be of any interest, you are at liberty to insert it in the News Letter:

A boy about thirteen years old, sent to me by a medical man, brought, wrapped in a piece of paper, the four lower incisors, which had been knocked out by a wheel in a worsted mill. The accident occurred at 3 o'clock in the afternoon; when he arrived at my house, it was 8 o'clock in the evening. Being in the country, five hours had elapsed before the teeth were replaced. The surgeon to whom he first applied, might have accomplished it much sooner; but as the teeth were the lower incisors, it required the more practised eye of a dentist to put each in its respective alveolar socket. The gum was bleeding and the wounds fresh, so that little difficulty or pain was encountered in replacing them. Three months have now gone by, the teeth are firm, the gum well united to their necks, and their color lively, not dull. The boy complains of slight pain upon pressing the teeth down firmly with the thumb.

I do not send you this case as any thing very new or unusual, but merely with the hope of drawing forth some remarks upon this part of Dental Surgery, which I think has not met with that attention at the hands of American dentists which it deserves. I

should like to know how long after an accident of this kind all chance of success would be considered gone; what is likely to be the appearance of these teeth a few years hence; how are they nourished, &c. &c. A very small portion of periosteum was left on the roots. Many interesting pathological discussions might arise from this subject. Have any of your correspondents made microscopic examinations of sections of teeth which have been knocked out and re-inserted? The bone would probably present the same appearance as that of some fangs, which are found lying on the gums, perfectly sound, receiving nourishment through the medium of a small portion of periosteum adhering to their sides.

Yours, truly,

J. H. PARSONS.

Halifax, England, October 25, 1850.

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For the Dental News Letter.

#### ADVANTAGE OF DENTAL PERIODICALS—TREATMENT OF NERVES, ETC.

Messrs. JONES, WHITE & McCURDY:

There was a time, not very remote, when I might not have enjoyed the pleasure I now have of listening to and communicating with my brethren of the "Dental Art" through the medium of your ever welcome messenger, the "News Letter." Happily that period in the history of the profession is drawing to a close, in which selfishness was the reigning spirit—when the members of the fraternity kept jealously aloof from each other, or, if they met, each viewed the other with looks askance, as if he were not certain whether it was

"A spirit of health, or goblin damn'd"

that he beheld—when, instead of enjoying the privilege of reading papers indicative of learning and research, such as the invaluable articles of J. D. White, M. D., on the "Treatment of Dental Pulp," and others no less useful and instructive, contained in your pages, almost the only medium (excepting the standard and new works of dental authors) afforded to the country practitioner for keeping pace with the improvements of the age, was, perhaps, through the *auspicious* visit of some individual, (a thing of by no means extraordinary occurrence,) who, after taking especial care to insure a profound respect by the information, in

pompous terms, that the part of *his* name you take hold of was *Doctur*, proceeded to tell that he was in possession of an "*invaluable receipt*" (not recipe) "*for curin' nerves, which he would let you have for five dollars, bein' as it was you, if you'd be pertickler and not tell nobody—not that he needed money, or keered about sellin', but bekase every good dentist like yourself ort to have it, as much good could be did by it, and hundreds of dollars made—was a dentist himself, and wouldn't tell it at all only the state of his health obleeged him to travel, and as he was passin', thought he would call, as you wouldn't like to miss the opperchunity.*" I wonder if your friend "R." has like specimens in his cabinet of "*curoisities*;" he certainly has if he lives out of the city.

But this is not what I commenced writing for, although I could not forbear a passing comparison between the facilities which present themselves now, and those formerly enjoyed by those who desired to keep up with the advancement of this branch of the healing art, and an expression of the gratitude I feel to those of your correspondents to whose kindness I at least feel indebted for many useful hints, for each of which I would consider five dollars a small compensation; although I have a number of them for the trifling subscription price of your "*Letter.*"

My object in writing now, although I do it with diffidence, is to name to the profession an article which, for three years, I have used much (although not exclusively) for the treatment of nerve. The ingredients certainly have been used by others, though I thought it might not have been in this combination. It may be my ignorance, but I confess I have not heard of it if such be the case. I do not bring it forward as a new thing, nor as my own; for it is not; though I thought perhaps some good might be accomplished, if *all* were acquainted with it. A friend of mine, an M. D., wished me to experiment on it, and I have found it to answer well generally, *when I had the ingredients pure*; sometimes, however, it requires several applications before the nerve can be removed for plugging. I am not satisfied that it is *always* preferable to arsenic; but I have found it generally so in two particulars. 1st. With the exception of a momentary pain on its being introduced, it causes no inconvenience to the patient. 2d.

I find that the proportionate number of teeth lost in the effort to save them is less; permanent inconvenience, such as inflammation and loss of vitality of the periosteum, ulceration, &c., not being so likely to ensue. The probable reasons why I need not fill your paper to explain—it would be superfluous. The recipe is as follows:

Tannin, gr. x.  
Sulph. Morph., gr. x.  
Sulph. Quin., gr. xv.  
Kreosot.—*Misce.*

I send you enclosed a partly developed inferior cuspidatus, which I obtained under the following singular circumstances. S. D. Scott, M. D., a successful surgeon of this town, called on me and wished me to see a patient whom he had not yet seen, but a portion of whose inferior maxillary he supposed, from the description of the father, had exfoliated. The patient, a boy of about seven years, had been kicked by a horse some three months previous, but was at such a distance that the force of the blow was spent before reaching him. The face was much bruised, but the bones were apparently uninjured, and the temporary teeth not displaced, though sore; he recovered from all apparent injury in a few days, though subsequently an abscess formed on his face a little back of the angle of, and somewhat under the chin, which discharged blood and pus until the partly formed fangs of a tooth appeared, which was supposed to be bone; it was removed and the wound speedily healed. The singularity of the case is, that a blow should so injure the germ in the maxillary as to destroy its vitality, and make it as an extraneous substance, and yet not fracture the bone itself nor displace any of the developed teeth.

C. N. HICKOK.

Bedford, Pa., Dec., 1850.

P. S.—I wonder if “R.” has any sets of teeth in his cabinet which can be adjusted by screws to the “jaw bone” through the gum. I was applied to for such a set some time since, to obviate the difficulty of removing them often, but was just out of the article.

C. N. H.

For the Dental News Letter.

## THE TOOTHACHE.

BY D. BATES.

Yes, yes it aches—that rotten tooth;  
I'll try no longer to conceal it;  
My face alone would tell the truth,  
And heaven knows full well I feel it.

Gods, how it tingles! Don't you laugh—  
I'd just as soon laugh at the dead;  
Each nerve is now a telegraph,  
And sends despatches through my head.

What did you say? Cold water—salt—  
Hop-poultice, with some opiate drugged?  
O yes, I know it is my fault;  
I should have had the puncture plugged.

Here, shut that door—confound the noise—  
“Yelp, yelp!” Well, keep from under feet:  
It seems as though those devilish boys  
Are mocking me, out in the street.

I'd rather have all sorts of ills—  
With fever burn, or ague shake;  
Take physic, drugs and patent pills,  
Than have this prince of ills—toothache.

Afraid to have it pulled, you say?  
A trifle, and I'd pull your nose:  
Can get a better? Where, I pray?  
“They make them at Jones, White & Co.'s.”

I'll not endure this longer, no:  
If there's a dentist to be had  
To ease me of this bitter woe,  
I'll have it out—I will—I'm mad!

Is Mr. ———, the dentist in?  
An aching tooth has made me fret;  
But something seems to lull the pain;  
Perhaps, sir, you can save it yet.

“Too long neglected—must come out;  
A mere unhealthy, useless shell;  
’T will hurt a little, there's no doubt,  
But when 't is over you'll be well.”



Well, pull it easy, Doctor, do—

'T will not hurt much, I think you said;  
The gum? why you are cutting through!  
Oh! ugh! you're pulling off my head!

Dear reader, one word let me say,

You've often, doubtless, been humbugged,  
But never worse, if you delay  
To have your crumbling teeth well plugged.

# ESSAY READ BEFORE THE PENNSYLVANIA ASSOCIATION OF DENTAL SURGEONS, OCTOBER 1, 1850.

GENTLEMEN:—We frequently hear persons whose teeth are unhealthy, inquire of us, “Why it is that they decay so soon?” and to wonder, “Why the Almighty did not make them last as long as they live?” And we are as often amused at their apparent astonishment and incredulity, when we inform them that the Almighty did not make their teeth decay. We tell them that all their pain, sickness, aches and afflictions, both mental and physical, have been inherited from their ancestors, and acquired by the process which they have passed through to render them civilized and refined. Instead of a sample of the most perfect piece of handiwork that ever came from the workshop of nature, (as man is said to have been originally,) we now behold a mere artificial specimen of frail humanity. There has been as much care bestowed upon their nurture as is required to cultivate a tropical planet at the north; their cradle was a perfect hot-bed, and they have been caressed and doted from infancy up. They have been fortunate, however, that the frosts of their early winters did not nip them in the bud; yet the greater wonder to me is, that they now have a sound tooth in their mouths.

Had their lot been cast amidst the uncultivated simplicity of nature, their companions none other than her unsophisticated noblemen, who rigidly conformed to all her laws, they never would have experienced one moment's pain or affliction of any kind, and their existence would have been one perpetual spring-time of comfort and ease, and their teeth would then have remained perfect “as long as they live.”

It would appear, then, that “every ill which flesh is heir to”

in the artificial state of civilization and refinement in which we live, are penalties inflicted for the violation of nature's laws. One of the severest of these are diseases of the teeth—one which, if it does not give rise to, often aggravates every affliction which the physician is called upon to heal. We frequently see persons whose friends suppose them to be “laboring under an incurable decline,” restored to perfect health soon after the extraction of all their diseased teeth, (which, in such cases, are generally the whole sett,) without any other treatment than so preparing their food as to dispense with the necessity of mastication. If such unpleasant consequences arise from diseases of the teeth, and such happy effects result from restoring the mouth to health, the well qualified dentist is a necessary requisite to our comfort and well-being.

It is a source of regret that the means of imparting and of acquiring proficiency in the dental art are so limited. In our laboratory the pupil generally receives sufficient instruction to enable him to execute artificial work successfully. From our libraries, and orally, he becomes familiar with the theory of the science; but persons are so averse to having students operate for them, that it is impossible to procure a sufficient amount of practice to enable them to perform the most simple operation upon the natural teeth in a skilful manner. The consequence is, he feels that he has been imposed upon, and is sensible that he is wholly unprepared to perform the necessary operations of his profession. Such teaching, to say the least of it, is an imposition upon humanity and degrading to the profession.

I am well convinced that students receive more practical instruction in the infirmary of the Baltimore College of Dental Surgery in one season, than I can impart in two years; and I have long since resolved never to receive a student who would not obligate himself to graduate at that or a similar institution. It is to be hoped that many years will not have elapsed before we will have a dental college in all of the principal cities in the Union. We will then see less unskilful operations, mankind will be benefitted and the profession elevated.

Respectfully,

JAMES PARRY.

York, Pa., May 27, 1850.

For the Dental News Letter.

## CURIOSITIES OF DENTISTRY.

The following was related to us by a practitioner in the South :

A gentleman, for whose wife our informant had inserted some teeth, introduced to his acquaintance a Major H——, who desired some professional services, and requested him to examine his mouth. On examination he found that the four incisors and four bicuspides of the upper jaw had been extracted, leaving the fangs of the two canines, which the Major said had been cut off a year before by Dr. —, who also had extracted the eight teeth alluded to, and that the eye teeth were nearly sound; and further, that the dentist had *burnt* the eye teeth off, and almost killed him in the operation.

The teeth substituted were somewhat as follows: the four incisors were riveted to a strap of gold about a quarter of an inch wide, which extended back on either side to the first molars, and hooked around them. The bicuspid and canines on each side were blocks of hippopotamus, chipped and filed to have the faintest possible resemblance to the natural organs. The blocks were riveted to the strip of gold also; but to make "assurance doubly sure," and put the finishing touch on all, the operator had conceived what he no doubt considered a splendid idea—that of fastening to the fangs of the eye teeth; which was done somewhat after the following original manner. The part of each block that was designed to represent the eye teeth, was fitted badly to the root, then a large cavity drilled in each root and filled with hickory, then a hole in each block corresponding to the holes in the fangs, of sufficient size to take in, head-foremost, a large sized *saddlers' tack*, where it was packed firm with splints of wood, and the points of the tacks which projected considerably, were pressed down into the wood filling in the fang, when the ends of the strap of gold were hooked around the molars, and the operation was completed.

We could readily believe that the operator in the above case was amazingly fertile in invention; if we did not suspect that he had just left the saddler's bench. However, it may be classed under the head of "*Saddle-tack Dentistry.*"

We were somewhat amused at a conversation we overheard some time since, at the sale of a dentist's effects, which occurred between two dentists. And here let me say, that on the decease of a brother dentist, and when his effects are to be sold by auction, that is the spot where dentists "most do congregate," which seems so much like "coming in at the death." There it is you will see re-unions, and shaking of hands, and the slightest possible amount of "*gassing*," as the following will show. But what is really deplorable is, that much in disparagement of the deceased and his effects is uttered, calculated to wound the sympathies of some relative or friend, and to affect the sale of the articles on which they have passed so harsh a judgment. But we are proud to say that but few manifest such a spirit.

The dialogue was somewhat as follows:

B. Good morning A, how are you?

A. Pretty well. How are you?

B. You come to take a look at the things also, I suppose?

A. Yes; but I am surprised that Dr. ——— should have operated upon such a mean, ragged looking chair as this. I would have supposed that a man with the practice he had, would have had a good chair.

B. Yes, so should I. And his instruments are common, old style affairs. Indeed, I would not have them in my office.

And so they go on, commenting on all the instruments and tools from the operating room to the workshop, with an occasional sling at the deceased, until, finally, after completely exhausting that topic, they turn to business—an inexhaustible fund.

B. How's business?

A. Very good—much as I can do. How is it with you?

B. Oh! I am hurried to death. Glad to see it rain when I get up in the morning, as I then have hopes of being able to eat my dinner without interruption, which is very seldom the case.

A. Yes, I am glad too. Indeed I hardly ever get to bed before midnight, and often then am hurried out of bed in the morning, to attend to some patient who has become tired of waiting his turn.

Precious creatures. Our advice would be, take good care of yourselves; for were you, by over-working, to "consign yourselves to an untimely grave," what would the world do, how

could your places be filled? Your services are too valuable—your lives too precious to be risked in thus over-tasking your abilities. Do be careful of yourselves. R.

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For the Dental News Letter.

## CONSIDERATIONS ON THE HUMAN VOICE IN RELATION TO DENTAL SURGERY.

BY J. D. WHITE, M. D., DENTIST.

*Messrs. Editors.*—I do not intend to enter into a highly scientific consideration of the above subject, but to endeavor to give, as concisely as possible, our experience in relation to it; and by what principles we are governed in our practice: seeing that by former methods, and of the practice of too great a number at the present time, much inconvenience is experienced by a disregard for a proper consideration of the organs of speech, in operations generally upon the teeth.

It would seem that few have any idea of the *physiology* of the voice, and still less have they *thought* upon the subject. That we have had great satisfaction by considering well the nature of the defects in the speech, in operating upon the teeth, and especially in setting artificial teeth, is true; while in the absence of such consideration much mischief would have resulted. If we can therefore succeed in directing the attention of some of the profession to this subject, our duty will have been performed, and our labors rewarded.

That the dental organs are largely concerned in enunciation, all will, I doubt not, agree. What are the first lisps of childhood but the effects of the imperfect development of the organs of speech, of which the teeth, gums and alveoli form an important part. Mark their changes from their earliest manifestations, modified by every change to mature development of the system generally, as well as by the organs of speech, up to the full, clear and robust development of adult life.

*The Larynx* is the principal organ concerned in effecting or producing what is called the voice. But many organs are necessarily concerned with it. *The trachea, the lungs, diaphragm and abdominal muscles*, below it: *the glottis, vellum-palati, naries, roof of the mouth, gums, teeth, lips and tongue* above or out-

side of the larynx. No voice can be perfect with either of these organs imperfect, or in an abnormal condition.\* And it is well for the dentist, when he discovers that he cannot produce an agreeable voice in setting teeth for a patient, whom he had not known previous to the loss of their teeth, whether any defect complained of depended upon a mal-arrangement of his work, or that of nature's or of the health and habits of the patient. The dentist ought to be sufficiently familiar with all the organs of speech and their peculiar functions, to judge which one, or more, it is that are not properly performing their respective functions. Whether difficulties complained of, depend upon a loss of any or all of the teeth, their mal-arrangement or disease, the imperfect development of the alveolar processes, what sounds are most affected by the loss of either or all of the teeth. As for instance, a loss of the posterior teeth are calculated to affect some sounds more than others. A loss of the front teeth, superior or inferior, affect different sounds differently; hence a correct idea of the "*articulations*" or articulate sounds, of the organs of speech is necessary. For instance, we must know whether it be a *labial*, a *dento-lingual*, or a *guttural* sound that is defective, before a remedy can be applied; and precisely in what way it is deranged and required to be modified.

What we mean by the "*articulations*" is the manner in which the column of air is stopped or restrained by the approximation or contact of the walls or sides of the vocal tube, as the air is impelled through it by the lungs, diaphragm, &c., in effecting enunciation. For instance, the lips must be brought in contact with each other, and then separated suddenly, to pronounce the letters B and P. These are labial articulations. The margins of the tongue must be placed in close contact with the gums and necks of the teeth of the superior jaw, and dwell there for an instant, in the same manner as the lips are brought in contact to stop the column of air in the labial sounds, then suddenly removed, to effect the sounds of the letters T and D. And the root of the tongue and veil of the palate must be brought in contact in like manner, to pronounce the letters K and Q.

\* An excellent paper by Dr. Hill, on the effect of diseases of those relative organs of speech, will be found in the October No., Vol. VIII. of the Am. Jour. and Lib. Dental Science.



To better comprehend all the articulations which the human organs of speech are capable of making, or ever make, in any simple or compound word, we will give a novel sentence, composed by the celebrated Prof. Gouraud, some years since, and given in his lectures on Pnemotechny, and which contains all the articulations, according to that author, which the human voice is capable of making. By simply citing it, the memory can recall any articulation at any time, and the voice can be well tested in investigating the causes of defects in the speech. It is as follows:—"Satan may relish coffee pie." The articulations are made thus:—

Sa-ta-n may re-l-ish cof-fee pie.

*Se-te-ne me re-le-she ke-fe pe.*

The voice that can make those articulations distinctly, may be considered perfect, and it is, in its mechanical relations; and there will be no defects in the speech, unless it be from a morbid, nervous sympathy in the organs in some way, with each other, in forming compound words or sentences. Very frequently the general health of children is feeble and the chest small, taking in too small a quantity of air at an inspiration, to effect properly the explosive sounds, which will end at last in stammering. As it is, as far as we have been able to observe on those sounds, stammerers are most defective—in the *labial*, *dento-lingual* and *guttural*.

In running over those articulations, it will at once be thoroughly understood, how intimately dental operations are connected with the human voice. For instance, *se* is produced by the tongue merely compressing, for a short time, but not stopping, the column of air as it is forced along the vocal tube, between its apex only and the posterior parts of the superior front incisor teeth and the margins of the gums, and then suddenly withdrawn, when the sound is completed. Now, no word can be distinctly enunciated, in which this articulation occurs, unless the tongue form a shut tube by the contact of the lateral margins of the tongue with the margins of the gums, except at the mere apex of the tongue. Very frequently great defect is produced by a loss of the back teeth, and especially when great absorption of the gums and alveoli take place, simply because the tongue cannot close the tube laterally, but allows the air to

escape into the cheeks, producing a very defective enunciation. Similar effects are produced in articulating *te*, *ne*, *re* and *le*.

We corrected a marked defect of this nature in the case of a Dr. R——, of New Jersey, in 1843, by setting teeth behind the canines, three on one side and two on the other, by simply joining the stay plates together and forming an even surface with the other teeth. In this way the margins of the tongue could form an air-tight joint, so to speak, along its lateral margins, which prevented completely the escape of the air into the cheeks. He was considered by his friends a regular stammerer; in fact, in speaking, his cheeks were vibrating like a bellows.

Again, it will be observed, that as the air rushes over the apex of the tongue, the sounds will be modified by the front incisors being very close together or very far apart; hence in filing, very marked changes are sometimes produced in the voice, also by the loss of a single tooth. It is on this sound that lisping mainly depends. If the tongue cannot come forward on account of the extreme narrowness of the upper jaw and projecting position of the front teeth, there will be lisping on this sound, and on the articulation of *te*.

A young lady, whose upper jaw is smaller than the lower, and whose teeth project a little, so as to show partially between the lips, when the mouth is at rest, inquired of us a few days ago whether her lisping was the result of *affectation*, as she was charged with it by some of her admirers, or that of the position of her teeth. We remarked that it was on account of imperfect articulations. She could not place the tongue far enough forward in the articulation *se*. The apex of the tongue could not reach the front incisors, and stopping short of its proper position, gave more the sound of *te*, or commonly *th*. The articulation *te*, as has already been observed, is formed by placing the tongue against the necks of all the upper teeth and the margins of the gums, in the same way that the letters T and D are sounded; stopping the current of air for an instant and suddenly removing it, the current of air being continued, the sound is completed.

Now it is clear that if any of the teeth are destroyed, and the margins of the gums rendered very uneven, so that the tongue cannot accommodate itself properly to their margins, that all the words in which this articulation occurs will be proportionately

defective; hence, in setting artificial teeth, either partial or full sets, if care is not taken to restore the natural relations of the mouth generally, and especially the principal relations which are broken, but little good will be effected, and, most commonly, great mischief will be done.

The citation here of a case which occurred to us some time since, may be useful:—Mrs. R., an intelligent lady, consulted us; she had six teeth set by an eminent dentist of our city—two bicuspid on the left side, and two bicuspid and two molars on the right, all the teeth back of the canine on the latter side being lost; all were fastened by a band around the first molaris of the left side, and the plate partially covering the roof of the mouth, but not extending sufficiently forward to touch the necks of the front teeth, but making a straight cut across from the posterior part of one canine tooth to the other, thus leaving about a quarter of an inch between the necks of the teeth and the margin of the plate, so that in forming the *te* articulation, the tongue impinged upon an unequally resisting surface, and on that account could not make a perfect articulation. In addition to this, a small atmospheric chamber was placed in the plate, in imitation of Gilbert's, but not quite far enough back to prevent the tongue from striking it in this articulation. In fact, the tongue could not fit its margins to the margins of the gums properly, and consequently all words in which the articulation *te* occurred were extremely defective; and, as the atmospheric pressure was not complete, or the band well fitted, the operation was working up and down in speaking, and the air escaping above the plate, it rendered her enunciation very defective and difficult. She remarked that she spoke as if she had a lump of candy on the end of her tongue. We gave it as our opinion that if a plate was properly fitted along the posterior parts of the front teeth, and the chamber omitted, as it would be useless if a band were used well fitted to the molar tooth, the whole adjusted nicely to the necks of the teeth so as to enable the tongue to fit along the margin of the gum upon the plate without impinging on the gum in front, so that the surface impinged upon by the tongue be even and equal in texture or resistance, and the case held firmly in its position, the whole difficulty would be removed. She consented to have such an operation made, and happily it has completely

restored her voice, as without teeth she exploded many sounds into the cheeks; and with the first set of teeth other articulations were interfered with so as to render the voice even more defective with the artificial teeth than without. To change the second set for the first, by way of an experiment, her speech is so different that she can hardly be understood; while with the second case her articulation is clear and full.

That the voice can accommodate itself, in a very great degree, to the broken relations of the organs of speech, is very evident; but dentists are too much in the habit of setting teeth in a hasty and an unscientific manner. When all the natural relations of the mouth are restored by the intelligent dentist, there is not that impediment in the speech on first placing teeth in the mouth that is generally experienced.

It is very common to see full sets of teeth much narrower between the second molars than between the first or second bicuspidæ, giving the appearance of a horse-shoe. The tongue cannot narrow itself at the root and then swell out in the middle to fill such an arch, and make the articulations *se*, *te*, *ne* and *re*, in the dento-lingual sounds, or *ke* in the gutturals, because the root of the tongue swells and widens as it approaches the palate in those sounds. And if the set of teeth is too narrow across the second molars, which in artificial teeth are as far back as the natural wisdom teeth, the tongue, instead of falling between the opposite teeth, will impinge against them, dislodging them from the gum, and sometimes even from the mouth; which latter effect was not unfrequent when spiral springs were much in use.

To be continued.

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*Amputation of the two Superior Maxillary Bones.*—M. Maisonneuve lately performed the above operation upon an old man affected with cancer. The chain-saw and Liston's pliers were the principal instruments used; but the patient died a few days afterwards. M. Maisonneuve had, some time previously, performed the same operation upon a girl, whose superior maxillæ were necrosed, in consequence of exposure to phosphoric fumes. The girl is alive, and will be presented to the Surgical Society of Paris. The latter, however, condemned the amputation of both the upper jaws.

# THE DENTAL NEWS LETTER.

JANUARY, 1851.

*An Inaugural Essay on Zoo-Adynamia, presented for the Degree of Doctor of Medicine in the University of Pennsylvania, By GEO. J. ZIEGLER, M. D.; Published upon the Recommendation of Prof. S. Jackson. Phila.: Lippincott, Grambo & Co., No. 14 North Fourth street.*—Upon examining the essay of Dr. Ziegler, we can scarcely decide which to admire most, the evident application and research which has enabled him to unfold so much that may be made useful, upon that intricate subject, the nervous system, or the clear and concise manner in which it is discussed. The subject, “Zoo-Adynamia,” signifying privation or deficiency of animal or living force or power, is treated of under various heads, and embraces a very great number of morbid derangements, both of parts and of the whole of the animal economy, which may be, according to the author, either “local or general, partial or complete, temporary or permanent in their character,” and “may result from 1st, Modification of Structure; 2d, Interference with Function without Modification of Structure; 3d, Inanition; and 4th, Sympathy.” All of which may be very sudden or very gradual in their occurrence.

The object of the essay, being the elucidation of the pathology and the diseases of the nervous system, and the principles of treatment of such diseases for the benefit of suffering humanity, we congratulate the author upon the apparent success of his efforts. Much that has been written upon the nervous system has been enveloped in such a mist of hypothetical and theoretical speculation, that it has been in a great measure a sealed book to us. Now that these clouds are being dispelled, we are enabled to judge more clearly of its relations to the whole organism, and the more practical are the views we deduce therefrom. The reader will find that the subject is treated of in a very original and intelligent manner. Many of the views are striking for their novelty and apparently practical character; that referring to the use of *nitrous oxide gas* in various morbid conditions, seems to be worthy of serious consideration; the author recommends it in

a great variety of abnormal actions or conditions, as, for instance, in cholera, cyanosis, the asphyxia from carbonic acid, as in the burning of coal in mines, &c., from opium, &c., and in conclusion sums up with these general remarks upon its properties and practical applications, viz: "It may be used first, to supply oxygen to the blood where there is a deficiency or privation; second, as an arterial, cerebral, and nervous stimulant; and third, as an alterative, and would be applicable in all cases calling for these indications, there being no complications, contra-indicating its use." And, under the head of "Inanition," this sentence is worthy of attention: "But there is also another condition, which is not so often exemplified in local as in general adynamia, viz. in which there is debility without any perceptible cause, constituting that condition generally called inanition."

This condition frequently involves the cerebral nerves, deranging their functions, as for example, partial or entire privation of sight from debility of the optic nerve or motor oculi, the latter allowing the iris to expand and admitting too many rays of light; deafness from debility of portio-mollis, &c., and also the other functions depending upon these nerves, as the movements of the tongue, eyes, facial and masticatory muscles.

And again under the head of "Sympathy."

We believe the following remarks are not less important than true. "Various spasmodic affections have their origin in some disturbance in the sentient expansions of the nerves, which, from its sympathetic transmission to the nerve centres, break or disturb the chain or connection for voluntary motion, and excites the peculiar involuntary spasmodic action. Although, of course, there must have been a predisposition of the ganglionic centres, produced either by the constant *transmission* of the morbid impression from the part or surface affected to the centres, till the predisposition became the exciting cause, or from some other cause."

Although the essay for the most part is chiefly important to the medical profession, still we find in it much that is applicable and that *ought* to be interesting to the dental profession. We have not room for further extracts, but trust that our readers will peruse it for themselves. For sale by Jones, White & Co., Philadelphia, New York, and Boston; price 25 cents.



*First Annual Announcement of the Transylvania School of Dental Surgery, Lexington, Kentucky.*—This pamphlet, which some friend was kind enough to send us, informs us of the establishment of another Dental School, and in the great West, where there is abundant room for it.

To judge from the ability of the Professors, the great field in which the college is located, and the absolute necessity for such instruction as is usually given in the colleges already established; we would predict great success and usefulness to this institution. While upon the subject, we would say that Pennsylvania should have a Dental College located at Philadelphia, and we think it high time the profession should set about the matter. What, shall the great West take the lead of us? Think of this matter gentlemen, and do not let petty jealousies or any thing else hinder its accomplishment.

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*Remarks on the Proper Management of the Teeth, &c.* By GEO. R. CARRADINE, Dentist, Mobile, Alabama.—This is a little pamphlet of some fourteen pages, gotten up, we presume, for circulation among the author's patrons and friends.

In glancing over its pages, we notice that the author has made some wonderful improvements in the manufacture of teeth, "after long and tedious experiments," which teeth "have received the approbation of numerous gentlemen of the most profound science, both in this country and in Europe."

This very strong recommendation will doubtless be perfectly convincing and satisfactory to the gentleman's patrons, and result in great good to him, which result we presume will not be exceedingly disagreeable.

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*The Medical Student's Guide in Extracting Teeth, with Numerous Cases on the Surgical Branch of Dentistry; with Illustrations* by S. S. HORNOR. Philadelphia: LINDSAY & BLAKISTON, 1851.—This is a neat book of some seventy-six pages, beautifully printed, and is replete with practical instruction, peculiarly adapted to the class for whom it was written, and who require just such a book. We predict for it a rapid sale. We would be pleased to make some extracts if our limits would permit.

*A Treatise on the Diseases and Surgical Operations of the Mouth and parts adjacent, &c.* By M. JOURDAIN. Translated from the French, and Published by LINDSAY & BLAKISTON, Philadelphia, 1851. Page 444.—We have been favored by the publishers with a copy of the above work, and can compliment them on its appearance. It is gotten up in their best style, which is saying a great deal.

The readers of the Am. Jour. and Lib. Dent. Science will recollect the title, as part or all of the work was translated for and published in that Journal; to them, therefore, it needs no recommendation, but to all others we can say it will be found well worthy a careful reading.

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### NEW AGENTS.

We have appointed the following new agents for the sale of our make of teeth:

DR. J. M. BROWN, corner of Fourth and Walnut streets, Cincinnati, Ohio. This gentleman has been long engaged in the sale of teeth, is perfectly conversant with the business, and well known and highly esteemed by the profession throughout the West. Orders for our manufacture of teeth will be filled by him with promptness.

J. P. POLK & CO., Druggists, corner Fayette and St. Paul streets, (Barnum's Building, west end,) Baltimore, Md. We have been urged repeatedly to establish an agency in Baltimore, and now that we have done it, we invite the patronage of the profession in Baltimore and those contiguous. The Messrs. Polk & Co. assure us that every facility will be afforded in selecting teeth, and that they will use their best endeavors to give all complete satisfaction.

JNO. E. SMITH & CO., Jewellers, Galena, Illinois. These gentlemen in addition to teeth, of which they have a fine stock, will supply the dentists with gold plate, and many other things used by dentists, such as workshop tools, &c.

W. A. HERRON, druggist, Peoria, Illinois.

JOS. DOUGLASS, druggist, Allegheny City, Pennsylvania.

These gentlemen are desirous of securing the trade in their respective neighborhoods, and will spare no pains to give satisfaction.

Our agency in Louisville, Kentucky, formerly in the hands of T. H. M'Allister, is now, by the formation of a new firm, in the hands of

SUTCLIFFE, M'ALLISTER & CO., druggists, Louisville, Kentucky. We bespeak for them a continuation of the liberal patronage bestowed upon T. H. M'Allister.

### HAWES' MOULDING FLASK.

At the last annual meeting of the Society of Dental Surgeons of the State of New York, Mr. George E. Hawes, of this city, exhibited, in connection with his experiments on metallic casts, a new flask for moulding models, which, owing to the depression of the jaw above the most prominent portion of the gums, cannot be removed perpendicularly from the simple flask, in common use, without dragging more or less sand with it. This "drag" prevents the dentist from procuring a perfect casting, which is ensured in all cases by the use of Mr. Hawes' new flask.

The following cuts will illustrate the operation of this flask with very little description :

Fig. 1.



Fig. 2.



Fig. 1 represents the lower section of the flask, slightly opened, to show the joints. Fig. 2 is the upper section. When ready for use, the lower section is closed and confined by a pin, and the plaster model placed in it, as represented in Fig. 3.

Fig. 3.



If the model be considerably smaller than the space between the flanges, projecting in towards it, small slips of paper may be placed in the joint extending to the sides of the model, to part the sand when opening the flask for the removal of the

pattern. The sand may now be tamped around the pattern up to the most prominent part of the gum, and it should be finished smoothly around it, slightly descending towards the model, so as to form a thick edge of sand for the more perfect parting of the flask. The sand and face of the model must now be covered with dry pulverized charcoal, sifted evenly over the whole surface. The moulders keep it in a bag which they shake over the flask.

When this is done, the upper section of the flask is placed upon the lower, and carefully filled with sand. It is then raised from the lower one, which may then be parted, by removing the long pin, and the model gently taken away. When closed, and the two put together again and inverted, it is ready to receive the melted metal.

We have used this flask, for which we are indebted to Mr. Hawes, for some months; and have been able to make, by its use, more perfect castings than ever before, in the kind of cases for which it was designed.—*N. Y. Dent. Rec.*

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## ON THE USE OF TIN AS A BASE FOR ARTIFICIAL TEETH.

BY GEO. E. HAWES.

In the curative treatment of carious teeth, *tin* has been successfully used as a filling; and if it has ever been injuriously affected, it has been owing to the unhealthy secretions of the mouth. But we find that, in the absence of all the human teeth, as in the case of infants and old persons, the mouth and breath are more sweet, and the secretions more healthy, than where they are all or in part remaining. Consequently, with proper attention to cleanliness, pure tin would be much less liable to be injured by that agent, when used as a base for artificial teeth, than as a filling, provided that the work is well adjusted, and does not cause excoriation. Where the mouth is wounded, or unhealed from the recent extraction of teeth, the tin in contact with such parts, (as I notice in my experiments for temporary sets,) becomes rough and corroded by the action of the buccal fluids, which are always acidulated when the mouth is in this condition. To prevent this, when I do not design to gild the work, I use a thin plate of gold under the tin, where it comes in contact with the gum.

The peculiar charm which gold possesses, will always secure for it a preference, with many of our patients, to any of the inferior order of metals, even though they could be furnished with a superior article for real service and comfort, at less expense. Some of our profession also consider it as empirical practice, for no other reason than the *tinkerish* way in which they are constructed, and the cheapness of the material, and fear that if generally adopted, "this our craft is in danger to be set at nought."

But from all that I can learn, from extensive experiment and inquiry, notwithstanding the objections urged against it, I am still of opinion that pure tin gilded, or without gilding upon a thin gold plate, may be used in all cases of whole or fractional under sets of artificial teeth, with more comfort and advantage to the patient, and with less expense and labor to the operator, than is possible with the use of gold alone. The evidence which I have collected in favor of this system of practice, appears to me sufficient to establish the fact that it is no longer matter of inquiry or experiment, whether tin be admitted in our practice as a base for artificial teeth, but that it is a scientific truth, and that every practitioner will, upon examination, find it his duty to recommend it to his patients, as best suited to secure the advantages which they require.

The manner of constructing sets of teeth upon this plan may be varied in different ways, and produce the same results. For fractional sets, it will be necessary to prepare, in the usual way, a thin gold plate, and strengthen that part which comes in contact with the natural teeth which remain in the mouth. When the plate is adjusted, place the wax upon it, and cut it to the right curve and the proper height for the length of the teeth. The teeth are then to be selected and placed round upon the wax, in the proper position for use; but it is not material that they come down to the plate, provided all that remains in view is properly arranged, as all below will be filled with tin when the process is completed. Plaster and sand is now to be put on the outside of the teeth and plate, in the same manner as though they were to be soldered in the usual way. When this is done, the wax may be cut away, the teeth removed from the plaster, and a thin gold back put upon them. In backing them,

it will be necessary to bend the platina wires over the gold. The backs may even be soldered to the plate, either by the blow-pipe or soldering iron, thus forming one solid mass of tin, covering the wires, and imitating, as nearly as possible, the form of the alveolar ridge which has been absorbed. When this is done, the plaster may be taken away, and as much tin put upon the front as will restore what has been lost by absorption of gum and alveolar process. When the piece is properly trimmed and burnished, it makes a very strong and natural set of teeth, in appearance, while the additional weight given to it by the tin keeps it in place better than those made in the ordinary way.

Whole under sets of teeth may be cast of pure tin with great facility, dispensing with all metallic castings and plates of every kind, in the following manner:

After the first cast is procured, which should be made of plaster with a large proportion of sand, fit to it a plate of tin, as thick as can be well rubbed down with a burnisher, and as large as a plate of gold should be. The wax is then put upon the tin plate, and trimmed to the proper curve and height, as in the ordinary practice. Next arrange the teeth upon the wax, taking care that they do not come in contact with the plate, by about the sixteenth of an inch. It is not necessary that the teeth should be lined, but the platina wires should be bent divergingly. The teeth may be broken off with a hammer or ground as most convenient, and arranged in a manner similar to the following cut:

Fig. 1.



Fig. 2.

Then place a strip of wax around the bottom of the front side of the teeth and plate, concealing all the ragged ends and bad joints. All the wax is now to be carved to represent the natural gums, and to supply the required fulness. See Fig. 2.

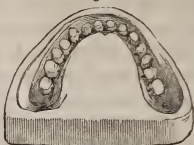


Care must be taken to select such teeth as have their platina pins low, so that they may remain imbedded in the wax after



the carving. When this process is completed, oil the plaster and sand cast, and place the teeth and wax upon it, and pour over them more plaster and sand, so as to cover the whole with a thick mass. After the plaster is thoroughly hardened, the mould may be parted, and the tin plate and all the wax taken away, leaving the teeth secured in the plaster, as Figure 3 illustrates:

Fig. 3.



Apertures must be constructed in the plaster, into which to pour the melted tin, and also for the escape of the air, at points which will not interfere with the subsequent finishing, as marked in Fig. 4.

Fig. 4.



After washing the platina pins with a flux of muriate of zinc, the two parts of the mould must be securely bound together, and, to insure perfect success, the whole should be slowly heated to the temperature of the melted tin, which it is now ready to receive. Heat pure tin just sufficiently to flow readily, and carefully pour it into the place prepared. When sufficiently cool, remove the plaster, and prepare to polish, first with the file, then with different qualities of sand paper, which executes this work with great facility. Then finish with the same care as for gold. (In cases where gum teeth or blocks are required, the above directions cannot be explicitly followed, as the teeth must then be wholly supported at the base and on the inside.)

The patient should now wear the teeth a few days, so as to become satisfied that they are well adjusted, and that no subsequent alteration will be necessary, as it would deface the work were it done after the gilding.

To prepare the set for gilding, a thorough cleansing is necessary, and unless this is effectually done, the adhesion between the tin and gold will be imperfect, the gold separating from the tin in burnishing, and easily rubbing off. In this process, all grease must be removed by the use of alkaline solutions and afterwards water, then guarding against the moisture of the

hand by a glove, perfectly polish the tin with a jeweller's soft brush and prepared chalk. Again rinse in water, to remove all extraneous matter, and immediately place the teeth in the gilding solution. During the process of gilding, the teeth should be removed two or three times and burnished, both to give solidity to the deposit, and to discover imperfections if any exist. When the gold is sufficiently thick, burnish in the usual manner.

I have not fully decided in my own mind, that the constructing of sets of teeth without a thin plate of gold, as first described, is the best method; neither do I as yet feel prepared to speak positively as to the durability of gilding when worn in the mouth, as it is only about one year since I introduced this method into my practice. A few days since I made a thorough examination of the case, and could not discover any appearance of the gold wearing off.

This is for me sufficient encouragement to pursue the system until time shall render its true and impartial verdict concerning it.

The experience of Dr. C. O. Crosby, of New Haven, corroborates that which I have given, and has the advantage of much longer trial. In answer to some inquiries, he writes to me thus: "Mr. — has worn his under set, constructed upon tin, for nearly three years, and still perfect. Another patient, Mrs. —, has a set, which has been in use for two years, still in good condition, but has a silver base or plate, is filled in or loaded with tinner's common soft solder, galvanized with silver, a thin coat, and burnished, and then galvanized with gold, about three coats, and burnished each coating. There is about \$2.50 value of gold on each plate. I have about sixty plates made upon this plan. Soft solder plates look dingy unless well galvanized with gold. The galvanizing will stand if there is any gold put on, and they actually require less cleaning, from the fact of the gold being pure. There is no galvanic action when all the other metals are covered. I consider tin alone, without galvanizing, *better* and having *less taste* than *eighteen carat gold*, with copper, silver and gold for solder. I have never found a person that could not wear them."—*American Journal of Dental Science.*

## PREMIUM TEETH.

We now assume for our manufactures the title of Premium Teeth, believing that we have fairly and fully earned it. We have chronicled in the News Letter, as we went along, the reception of medals as received, and we have now to notice the following awards made us by the Mechanics' Institute, of Baltimore, and the Franklin Institute, of Philadelphia, at their last exhibitions. From each a SILVER MEDAL—FIRST PREMIUMS.

The Committee on Dentistry of the Franklin Institute, in their published report, speak as follows :

"This case is considered worthy of a special notice, for the following reasons:—The exceeding vital appearance which the teeth maintain when exposed to the test of artificial light, the nicely articulating surfaces of the bicuspid and molars, and the distinction between the first and second bicuspid, the first being smaller, thus gradually increasing the size from the incisors to the molars, and rendering the change less abrupt to the tongue. The manner in which the platina pins are inserted, is also adjudged to be a decided improvement. The committee award a FIRST PREMIUM."

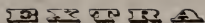
What is peculiarly gratifying to us is, that the committees of both institutions consisted entirely, we were informed, of dentists, who, it is to be presumed, are the best judges of teeth.

It were needless for us to say a single word in favor of the teeth, or to give the many testimonials from private individuals in the profession, whose opinions we value highly ; as the awards that have been made us by the various institutions and dental associations are deemed abundantly sufficient to prove the quality and establish the reputation of our manufactures.

We give below and on our next page cuts of our principal medals.

## GOLD MEDALS.





# DENTAL NEWS LETTER.

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JANUARY, 1851.

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[In consequence of the demand by dental students, and some young practitioners, for a plain, concise and practical essay on mechanical dentistry, the following article was, at our request, prepared. The author is well versed in that branch, and fully competent to teach it.

We will take this occasion to say, that of all the letters of inquiry sent to us, more than one-half of them have been on subjects connected with mechanical dentistry, and it is no small tax to us, particularly in time, to answer them. We hope, therefore, that the following will relieve us to some extent at least, although we do not wish to cut off all inquiry, but, on the contrary, desire to communicate to the extent of our ability.

To some it may seem like going back to the alphabet, or first lessons in dentistry, but to many it will be of much interest, and for those only was it written.—ED.]

For the Dental News Letter.

## MECHANICAL DENTISTRY.

BY T. L. BUCKINGHAM, DENTIST, PHILADELPHIA.

*Taking an impression in Wax.*—Select a cup large enough to leave a space of an eighth of an inch for the wax between the cup and the gum. Prepare the wax by softening before a fire, and working it in the fingers until it is soft enough. Fill the cup full of wax, giving it somewhat the shape of the gum, and using no more than is necessary. Put it in the mouth, standing behind the patient when the impression is for the upper jaw, and before when it is for the lower jaw. Put one hand on each side of the cup, and press it gradually up until the impression is nearly deep enough; then, holding the cup steady with one hand, press the wax close to the gum on the outside, and also to the roof of the mouth; now put one hand on each side of the cup, and press it up a little farther and the impression is complete. To remove

it, take hold of the handle of the cup and loosen it gently, and take it out of the mouth by turning it so that one side will come out first. Be careful not to let the lips bend the edge of the wax over into the impression. If, in loosening the wax from the mouth, the teeth have drawn the wax up around the impression of them, it can be cut off with a knife. Compare the impression with the mouth, to see if it be correct, and fix in your mind the teeth that are to be clasped, if clasps are necessary.

*Taking an impression in Plaster.*—Plaster impressions are taken of the upper jaw only, and where there are no teeth; for, if there are teeth, they would break the impression so much in removing it, that it would be useless.\* The cup should be of the shape of a suction plate. If such a one is not to be had, an ordinary cup can be substituted by building it up back with wax, to keep the plaster from running out. Make it as near the shape of the mouth as possible, only larger. Mix the plaster pretty thick, stirring it well while mixing, and pour into the cup, leaving it stand a moment, or until it becomes so stiff that it will build up without settling down. The patient should have a napkin spread over the breast to protect the dress from any plaster that might fall, with the head inclined forwards to prevent the possibility of any of the plaster going down the throat. Get the plaster into the mouth as gently as possible, and press the cup gradually up until the impression is deep enough, and hold it there until the plaster sets, which will be from three to five minutes.† It can be told when the plaster is hard enough, by trying what hangs over the edge of the cup, or what has been left in the vessel the plaster was mixed in. When it breaks short, or has lost the sticky feel, it will do to remove it from the mouth.

Plaster takes a much better impression than wax. The wax, when pressed up, will slide over the roof of the mouth, which

\* There are some who succeed in taking an impression of the lower jaw in plaster; and also, in taking impressions where there are teeth remaining in the mouth; the latter they accomplish by breaking the impression in the mouth, and connecting the pieces afterwards by cement.

† The plaster will harden sooner by mixing it with salt water. This will do in taking impressions, but will not answer for casts, as it makes the plaster crumble.

often spoils the impression; and, again, it often sticks to the mouth, and is difficult to remove, or the edges will be curled over in removing it from the mouth; but none of these objections will apply to plaster, excepting that the edges may be broken in removing it; but these can be replaced and made perfect by using a little cement.

I am satisfied that, if the mode of taking impressions with plaster be once adopted, it will not be abandoned, at least not to go back to wax. Out of a number of cases I have never failed to make a good fit when I took the impression in plaster.

*To make the Plaster Cast.*—Take a strip of sheet lead, such as is used for cutting patterns, or a piece of paper folded three or four times, leaving it some two inches wide, and a foot or more long. Set the wax impression after oiling it, on the table, and fold the strip of paper around it, and so shape it that the cast will be largest at top;\* mix the plaster just thick enough to flow into all the indentations in the impression; then with a knife or spoon, drop a small quantity into the impression, commencing at the roof of the mouth, letting it flow down gently, filling up the impressions of the teeth, when the balance may be poured in from the cup until you have the cast from one and a half to two inches thick. Let it stand until the plaster is hard enough to keep its form, then remove the band and let it remain until perfectly hard. The wax can be removed by first cutting it away, so as to free the edge of the cup all around, then by running the point of a knife between the cup and wax, the cup can be forced away, leaving the wax on the cast. Then hold the wax to the fire until it is quite soft, and holding the cast in one hand, bend the wax up in front until the surfaces of the teeth are exposed, then cut the wax away until the teeth are all free, then the large portion of wax in the cavity of the cast can be removed in a lump. The cast should now be trimmed, so as to draw readily from the sand. If the front of the cast, or the teeth on one side should project, there must be left a corresponding fulness on the opposite side; or, that a line drawn lengthways with the teeth in front, and one drawn on the opposite side of the cast would diverge as they go from the teeth to the top of the cast.

\* In taking a cast from a plaster impression. allow the impression to become perfectly dry. then oil it, and cast as described for wax.



If the cast is not perfect around the teeth, it must be trimmed until it is so. Of course, the object is, to have a perfect model of the mouth. It is well to varnish the cast with some spirit varnish; I prefer a varnish made by dissolving gum sandrach in alcohol, as it leaves the cast almost white, and penetrates farther into the cast, thereby making it harder than the shellac varnish, which is generally used.

If the points or edges of the teeth are closer together than their necks, the space should be filled up with wax until the sides are at least parallel. If it is designed to fit a cavity plate, the wax for forming the cavity should be put in after the cast has been varnished, as it sticks much better on the varnished cast; and it can be varnished also.

*Moulding in Sand.*—Take some of the finest casting sand,\* just moist enough to hold together; fill a small vessel, say a common tin cup. If it is too wet, the hot metal when poured into it will cause so rapid an evaporation of the moisture as to make the metal boil; and if too dry, will crumble when the metal is poured in, either of which would spoil the cast. Screw an ordinary stump screw into the top of the cast, and press the cast, teeth down, into the sand, then pack the sand around the cast, until the sand is level with the top of the cast; now take hold of the screw with one hand, and with a small hammer in the other, tap the shank of the screw gently, so as to jar the cast in the sand, and turning the cup around, striking the screw on several sides, until the cast is loose, then lift it up slowly and carefully, tapping the screw in the meanwhile, until the cast is out of the sand. If the sand has drawn up around the teeth, brush the sand off the cast, and replace it in the mould, going through the operation as before, and if necessary, repeat, until the mould is perfect. If a little loose sand should fall into the mould, it can be turned up and the sand blown out. The sand should not be packed too tight, but have it sufficiently porous to allow the vapor to pass through it.

*Making the Zinc Cast.*—Melt a sufficiency of zinc, and when it has just melted take an old knife, or something similar, and

\* We have noticed that common whiting has been used instead of sand with good success.

skim off all the dross; let it stand until it begins to harden, or stick to the sides of the ladle, then pour it into the mould, beginning at a part of the mould where it is not required to be perfect, for fear of the metal washing the sand, continue to pour gently, with the ladle close to the sand, until the mould is full. Let it stand till the metal is hard, then remove it and cool in water. If the cast is not perfect around the teeth, the superabundance can be cut away with a coarse file and graver; and if necessary to separate the teeth on the zinc cast, it can be done with a small saw, such as carpenters use for sawing circles. The zinc cast should of course be a fac-simile of the plaster model.

If a zinc cast has been properly made, it will be as bright and smooth as a piece of silver plate. If the zinc be poured too hot it will boil, though the sand be in a proper state.

*To make the Lead Cast.*—Put the zinc cast into a cup or ring, with the teeth up, and with a small quantity of sand under it, to make it set steady; then fill the cup with sand, and pack it down, until it is three-quarters of an inch above the teeth, then cut the sand out with a knife, until all the parts of the zinc cast, where the plate is to fit, are exposed. Where the plate curls over the gum, the lead cast should be thick, but it need not run farther down on the zinc cast than the plate is to go. If the lead cast be too deep, it makes it more difficult to swedge the plate, and the plate will stick in the lead, and be bent in getting it out. Melt the lead in another vessel than the one in which the zinc was melted, for if but a small portion of lead be mixed with the zinc, it will spoil it for future use. Pour the melted lead over the zinc cast as prepared, and in a few minutes remove them and wash clean, and knock them apart with a hammer, and all is ready.

*To make a Plate.*—Take some thin sheet lead, and by pressing it down on the cast and marking and cutting out, get a pattern of the size the plate is desired, then spread the pattern out, and lay it on the plate, and mark and cut out; anneal the plate by heating; now, with a pair of plyers, or bending plate forceps, and a small wooden mallet of suitable size, fit the plate, as near as possible, to the zinc cast, then put your casts together with the plate between them, and strike the zinc cast lightly with a hammer, then take them apart and see if the plate is in its proper

position, and repeat, striking the cast a little harder, until the plate is nearly up, when, with two or three smart blows, the plate is made to fit the cast accurately.

In swedging a plate be sure to get it started aright, and it may be necessary to anneal it two or three times during the operation, and also to file away a little if it should bind too tightly in any place. When the plate fits the zinc cast, it should be tried on the plaster cast to see if it fits it also. Then bend the clasps with a pair of round nosed plyers to fit the teeth as near as possible, particularly around the necks of the teeth where they are to be soldered to the plate, and file the plate away to allow them to go down between it and the teeth; now arrange the plate and clasps on the plaster cast, and stick them together with some wax or cement, then lift them carefully from the cast, and set them on a piece of charcoal, then pour some mixed plaster over the ends of the clasps and under the plate; when it gets hard remove the wax, and if there is any place where the clasps stand off from the plate, fill it up with scraps of gold; now coat the places, or joints, where the solder is to flow, with borax, and lay on the solder and melt or flow it; when it is cold try it on the zinc cast, and fit the clasps up to the teeth with a small hammer, then remove and file the clasps and plate to the shape they are to be, then put the plate on the zinc cast, and, after cutting away the lead cast so as not to drive the clasps down too far, put them together and swedge the plate up again, and see that it fits the plaster cast. The plate should now be boiled in some diluted sulphuric acid, for a few minutes, to remove the fire coat, and, after washing it, stone up and polish the plate. Some do not polish till after the teeth are soldered on, but I think much time is saved by polishing at this stage of the operation, as it can be done so much more quickly than when the teeth are on. Now try the plate in the mouth and make it fit perfectly easy. Cut, file and bend it, if required, till both yourself and patient are satisfied.

It is very important that we should have the confidence of the patient, and this can generally be secured by giving satisfaction, and also by making all necessary explanations.

When the plate has been properly adjusted, take the close of the mouth as follows: Put the plate on the plaster cast, and

arrange wax on the plate where the artificial teeth are to go, leave the wax longer and fuller than the artificial teeth are to be, then put the plate in the mouth with the wax on it, and have the patient close the mouth naturally, and if there are natural teeth in the opposite jaw which antagonise with teeth in the jaw you are fitting, let the mouth be closed until they come together. If there should be no natural teeth to articulate, some hard substance had better be put into the wax to keep the patient from biting too far into it. Notice, that in closing the mouth, the under jaw has not been projected or twisted laterally, but that it has been a natural close. As patients are very apt to project the lower jaw in closing the mouth, a good plan to prevent it is, to put the hand against the lower jaw, and press backwards as the jaw closes. If the close has been correct, mark the exact centre of the mouth, and remove the plate and wax, and select a tooth for shade.

*To make an Articulating Cast*, place the wax with which the close of the mouth was taken and plate, on the plaster cast, and fill up the roof of the mouth even with the points of the teeth, and nearly as far back as the back of the cast; then cut a V shaped groove down the back of the cast, and oil it well, so that the articulator will not stick to it; then mix some plaster and drop it into the impressions of the under teeth, and let it flow down the back of the cast, filling up the groove; then make the plaster thick enough to build up with a knife.

The articulator should be about half an inch thick on the top and back. When the plaster has set, it can be trimmed off, and the casts taken apart. When the plate and wax are removed, and the casts put together, we have a fac-simile of the mouth when closed.

The teeth may now be selected to suit the case; the shade tooth and articulating cast will be sufficient guides in their selection. To grind the teeth to the plate a grinding machine of some kind is necessary, with several sizes of emery wheels. I prefer a small lathe, as it best answers to polish plates. Put the plate on the cast, and commence to grind the teeth to fit. If it is intended to run the necks of the teeth over the plate and press upon the gum, the cast should be scraped away about the thickness of a five cent piece; if, however, the gum be very soft or spongy, it may be scraped even further. The teeth should be ground to fit

the plate, and the neck-press upon the cast, allowing sufficient projection to clear the under teeth. The necessary projection and length will be ascertained by putting the casts together; as the teeth are ground to suit, they must be attached to the plate in their proper position with cement. (Cement may be made by melting beeswax and rosin together.)

Another and quicker way to grind the teeth, is to build up some wax on the plate, and arrange the teeth around on the wax, but as we cannot see the back of the teeth for the wax, we have to grind by guess, and often leave a space between the base of the teeth and plate.

When the teeth have been ground and properly arranged, remove the plate and teeth from the cast, and set them on a piece of charcoal, then mix some plaster and sand, about equal parts, and pour it around the teeth, and let it flow under the plate; when the plaster is about half way up the front of the teeth, put a piece, or two or three pieces of stiff iron wire, twisted together, around the front of the teeth, so that if the plaster should break in heating, the teeth will not be drawn out of place; then build up the plaster until the points of the teeth and the clasps are covered. The plaster should be about half an inch thick. If there be too much plaster it will take an extra heat to solder the teeth, and if too little, it is liable to break before the teeth are soldered. When the plaster has become hard, the cement that held the teeth to the plate can be removed, and the stays put on the teeth.

In putting the stays or lining on the teeth, take a strip of gold—if a gold case—of suitable width, or nearly as wide as the teeth, and stand it up against and along the back of the tooth, and file the end if necessary to fit the curve of the plate to which the lining is to be attached when soldered, move it sideways against the lower pin of the tooth, and it will be marked where the pin comes, then with the punch forceps, punch a hole for the pin, then put it back again with the pin in hole, and move the strip as before against the upper pin, by which you get the spot to punch the other hole; see that it fits the tooth after filing off the metal which the punch has driven through, then countersink the holes on the outer surface, and cut the lining off the proper length. I generally leave the lining large enough to cover nearly the whole surface of the tooth. In punching the linings, punch always from the side that goes next the tooth.

After punching, cut the lining off the proper length and place it on the tooth. When all the linings have been punched and cut off, they should be filed to the shape required.

Some operators make the linings round on top, some square, and some oval on the outer surface; but, let the shape be what it may, they should all be of a length, and present an uniform appearance. When all are arranged they should be taken off, commencing at one end, and laying them in a row with the side up that goes next to the tooth; then put some borax on each lining and also on the pins of the teeth; then replace the linings on the teeth, and with a sharp graver split each pin and wedge apart so as to bind the lining close to the tooth. The reason for placing borax between the linings and teeth, is, to aid in flowing the solder through the holes to the backs of the teeth. I have often found that when there was no borax there, the solder would only flow over the ends of the pins, and when I filed the solder off, the lining could be easily drawn off the tooth.

When the linings have all been fastened in this way, we may proceed to solder the whole case at once; but as it is very hard to finish up a case, when the teeth have been soldered to the lining and the lining to the plate all at one heat, I prefer to solder the lining to the tooth first. Remove the teeth from the plaster and lay them on a piece of charcoal with the lining up, borax the lining and lay a small piece of solder on each pin and heat them up very gradually; blow a broad, gentle flame, and move the charcoal so as to make the flame play in a circle around the teeth without touching them at first; then gradually diminish the circle until the flame comes directly on the teeth; still keep the charcoal moving until they are at a full red heat, then let the flame rest a moment on each tooth and the solder will flow. Great care should be taken in heating teeth; it should be done with a broad, steady, gentle flame. If they are heated with very fierce puffs of the blow-pipe, or with a jet of the flame, they are almost sure to break, and it is very annoying to have a tooth break when the case is so near done. When they are soldered, they should be covered at once with a piece of charcoal hollowed out, to protect them from the air in cooling. Now file the linings smooth and put the teeth back in their places in the plaster, but be careful that no pieces of plaster get into their



places. When they are all in their proper position, mix some plaster and cover the points of the teeth as far down as the linings, which will keep them from being drawn out of their places in soldering to the plate.

If there be any places where the linings do not fit close to the plate, the space should be filled with small pieces of gold. Then borax well the joints to be soldered, and lay two or three pieces of solder on each joint. The solder now used should melt more readily than that used in soldering on clasps or linings to the teeth. The case is now ready for the last soldering. Commence blowing on the outside of the plaster, and move the charcoal so as to heat the plaster evenly all around; when the plaster is red hot on the outside, then bring the flame in on the plate and keep it moving from side to side until it is of a red heat, then let the flame rest on each tooth until the solder flows.

In soldering, the heat should be applied very gradually and steadily. The habit of using the blow-pipe properly is soon acquired, if we do not hurry too much. The difficulty in most cases is, that we blow too hard at first, and the lungs become exhausted before we are half through; while, if we would blow gently, and when we found the lungs becoming exhausted, would stop and take an inspiration or two, we could get through without difficulty.

After the case is soldered, it should be let stand in the plaster until it is perfectly cold, for fear the cold air coming in contact with the teeth while hot should break them. After being removed from the plaster, the case should be boiled out in some diluted sulphuric acid for a few minutes; the teeth, however, being put in the acid before it is warmed. Where there is time to wait, let the case lay in the cold acid for thirty minutes; this removes the borax and fire-coat from the plate. Then, with a graver or scraper and files, finish the case up as smooth as possible; then, with a strip of scotch-stone, stone all the file and other marks and scratches out of the plate, keeping it wet while stoning; then wash all clean, and burnish with steel or blood-stone burnisher, using soap and water during the operation; I prefer, however, to polish with a brush-wheel on a lathe, using sweet oil and tripoli or rotten stone; then, with a buff-wheel about the size of half a dollar, made of two or three thicknesses of hat-felt or thick buckskin, polish the plate all over where the buff will

touch, and where it will not touch use a pointed stick covered with soft leather; then brush it again with the brush-wheel, and wash clean with soap and water; then, with another buff-wheel made of soft buckskin, on which use rouge, polish your plate well till you have a beautiful gloss; wash off the rouge and dry the case with chamois leather or a soft napkin, or, what is better, cover the whole up in some dry saw dust for an hour or so, which will absorb the moisture without injuring the polish. The case is now ready for the mouth.

### HAWES' MOULDING FLASK.

At the last annual meeting of the Society of Dental Surgeons of the State of New York, Mr. George E. Hawes, of this city, exhibited, in connection with his experiments on metallic casts, a new flask for moulding models, which, owing to the depression of the jaw above the most prominent portion of the gums, cannot be removed perpendicularly from the simple flask, in common use, without dragging more or less sand with it. This "drag" prevents the dentist from procuring a perfect casting, which is ensured in all cases by the use of Mr. Hawes' new flask.

The following cuts will illustrate the operation of this flask with very little description:

Fig. 1.

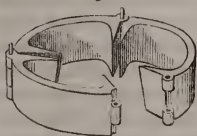


Fig. 2.



Fig. 3.



Fig. 1 represents the lower section of the flask, slightly opened, to show the joints. Fig. 2 is the upper section. When ready for use, the lower section is closed and confined by a pin, and the plaster model placed in it, as represented in Fig. 3.

If the model be considerably smaller than the space between the flanges, projecting in towards it, small slips of paper may be placed in the joint extending to the sides of the model, to

part the sand when opening the flask for the removal of the pattern. The sand may now be tamped around the pattern up to the most prominent part of the gum, and it should be finished smoothly around it, slightly descending towards the model, so as to form a thick edge of sand for the more perfect parting of the flask. The sand and face of the model must now be covered with dry pulverized charcoal, sifted evenly over the whole surface. The moulders keep it in a bag which they shake over the flask.

When this is done, the upper section of the flask is placed upon the lower, and carefully filled with sand. It is then raised from the lower one, which may then be parted, by removing the long pin, and the model gently taken away. When closed, and the two put together again and inverted, it is ready to receive the melted metal.

We have used this flask, for which we are indebted to Mr. Hawes, for some months; and have been able to make, by its use, more perfect castings than ever before, in the kind of cases for which it was designed.—*N. Y. Dent. Rec.*

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## ON THE USE OF TIN AS A BASE FOR ARTIFICIAL TEETH.

BY GEO. E. HAWES.

In the curative treatment of carious teeth, *tin* has been successfully used as a filling; and if it has ever been injuriously affected, it has been owing to the unhealthy secretions of the mouth. But we find that, in the absence of all the human teeth, as in the case of infants and old persons, the mouth and breath are more sweet, and the secretions more healthy, than where they are all or in part remaining. Consequently, with proper attention to cleanliness, pure tin would be much less liable to be injured by that agent, when used as a base for artificial teeth, than as a filling, provided that the work is well adjusted, and does not cause excoriation. Where the mouth is wounded, or unhealed from the recent extraction of teeth, the tin in contact with such parts, (as I notice in my experiments for temporary sets,) becomes rough and corroded by the action of the buccal fluids, which are always acidulated when the mouth is in this condition. To prevent this, when I do not design to gild the work, I use a thin plate of gold under the tin, where it comes in contact with the gum.

The peculiar charm which gold possesses, will always secure for it a preference, with many of our patients, to any of the inferior order of metals, even though they could be furnished with a superior article for real service and comfort, at less expense. Some of our profession also consider it as empirical practice, for no other reason than the *tinkerish* way in which they are constructed, and the cheapness of the material, and fear that if generally adopted, "this our craft is in danger to be set at nought."

But from all that I can learn, from extensive experiment and inquiry, notwithstanding the objections urged against it, I am still of opinion that pure tin gilded, or without gilding upon a thin gold plate, may be used in all cases of whole or fractional under sets of artificial teeth, with more comfort and advantage to the patient, and with less expense and labor to the operator, than is possible with the use of gold alone. The evidence which I have collected in favor of this system of practice, appears to me sufficient to establish the fact that it is no longer matter of inquiry or experiment, whether tin be admitted in our practice as a base for artificial teeth, but that it is a scientific truth, and that every practitioner will, upon examination, find it his duty to recommend it to his patients, as best suited to secure the advantages which they require.

The manner of constructing sets of teeth upon this plan may be varied in different ways, and produce the same results. For fractional sets, it will be necessary to prepare, in the usual way, a thin gold plate, and strengthen that part which comes in contact with the natural teeth which remain in the mouth. When the plate is adjusted, place the wax upon it, and cut it to the right curve and the proper height for the length of the teeth. The teeth are then to be selected and placed round upon the wax, in the proper position for use; but it is not material that they come down to the plate, provided all that remains in view is properly arranged, as all below will be filled with tin when the process is completed. Plaster and sand is now to be put on the outside of the teeth and plate, in the same manner as though they were to be soldered in the usual way. When this is done, the wax may be cut away, the teeth removed from the plaster, and a thin gold back put upon them. In backing them,

it will be necessary to bend the platina wires over the gold. The backs may even be soldered to the plate, either by the blow-pipe or soldering iron, thus forming one solid mass of tin, covering the wires, and imitating, as nearly as possible, the form of the alveolar ridge which has been absorbed. When this is done, the plaster may be taken away, and as much tin put upon the front as will restore what has been lost by absorption of gum and alveolar process. When the piece is properly trimmed and burnished, it makes a very strong and natural set of teeth, in appearance, while the additional weight given to it by the tin keeps it in place better than those made in the ordinary way.

Whole under sets of teeth may be cast of pure tin with great facility, dispensing with all metallic castings and plates of every kind, in the following manner:

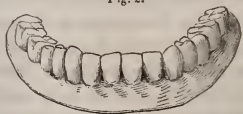
After the first cast is procured, which should be made of plaster with a large proportion of sand, fit to it a plate of tin, as thick as can be well rubbed down with a burnisher, and as large as a plate of gold should be. The wax is then put upon the tin plate, and trimmed to the proper curve and height, as in the ordinary practice. Next arrange the teeth upon the wax, taking care that they do not come in contact with the plate, by about the sixteenth of an inch. It is not necessary that the teeth should be lined, but the platina wires should be bent divergingly. The teeth may be broken off with a hammer or ground as most convenient, and arranged in a manner similar to the following cut:

Fig. 1.



Then place a strip of wax around the bottom of the front side of the teeth and plate, concealing all the ragged ends and bad joints. All the wax is now to be carved to represent the natural gums, and to supply the required fulness. See Fig. 2.

Fig. 2.



Care must be taken to select such teeth as have their platina pins low, so that they may remain imbedded in the wax after

the carving. When this process is completed, oil the plaster and sand cast, and place the teeth and wax upon it, and pour over them more plaster and sand, so as to cover the whole with a thick mass. After the plaster is thoroughly hardened, the mould may be parted, and the tin plate and all the wax taken away, leaving the teeth secured in the plaster, as Figure 3 illustrates:

Fig. 3.

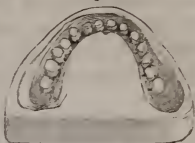


Fig. 4.



Apertures must be constructed in the plaster, into which to pour the melted tin, and also for the escape of the air, at points which will not interfere with the subsequent finishing, as marked in Fig. 4.

After washing the platina pins with a flux of muriate of zinc, the two parts of the mould must be securely bound together, and, to insure perfect success, the whole should be slowly heated to the temperature of the melted tin, which it is now ready to receive. Heat pure tin just sufficiently to flow readily, and carefully pour it into the place prepared. When sufficiently cool, remove the plaster, and prepare to polish, first with the file, then with different qualities of sand paper, which executes this work with great facility. Then finish with the same care as for gold. (In cases where gum teeth or blocks are required, the above directions cannot be explicitly followed, as the teeth must then be wholly supported at the base and on the inside.)

The patient should now wear the teeth a few days, so as to become satisfied that they are well adjusted, and that no subsequent alteration will be necessary, as it would deface the work were it done after the gilding.

To prepare the set for gilding, a thorough cleansing is necessary, and unless this is effectually done, the adhesion between the tin and gold will be imperfect, the gold separating from the tin in burnishing, and easily rubbing off. In this process, all grease must be removed by the use of alkaline solutions and afterwards water, then guarding against the moisture of the



hand by a glove, perfectly polish the tin with a jeweller's soft brush and prepared chalk. Again rinse in water, to remove all extraneous matter, and immediately place the teeth in the gilding solution. During the process of gilding, the teeth should be removed two or three times and burnished, both to give solidity to the deposit, and to discover imperfections if any exist. When the gold is sufficiently thick, burnish in the usual manner.

I have not fully decided in my own mind, that the constructing of sets of teeth without a thin plate of gold, as first described, is the best method; neither do I as yet feel prepared to speak positively as to the durability of gilding when worn in the mouth, as it is only about one year since I introduced this method into my practice. A few days since I made a thorough examination of the case, and could not discover any appearance of the gold wearing off.

This is for me sufficient encouragement to pursue the system until time shall render its true and impartial verdict concerning it.

The experience of Dr. C. O. Crosby, of New Haven, corroborates that which I have given, and has the advantage of much longer trial. In answer to some inquiries, he writes to me thus: "Mr. — has worn his under set, constructed upon tin, for nearly three years, and still perfect. Another patient, Mrs. —, has a set, which has been in use for two years, still in good condition, but has a silver base or plate, is filled in or loaded with tinner's common soft solder, galvanized with silver, a thin coat, and burnished, and then galvanized with gold, about three coats, and burnished each coating. There is about \$2.50 value of gold on each plate. I have about sixty plates made upon this plan. Soft solder plates look dingy unless well galvanized with gold. The galvanizing will stand if there is any gold put on, and they actually require less cleaning, from the fact of the gold being pure. There is no galvanic action when all the other metals are covered. I consider tin alone, without galvanizing, *better* and having *less taste* than *eighteen carat gold*, with copper, silver and gold for solder. I have never found a person that could not wear them."—*American Journal of Dental Science.*

# THE DENTAL NEWS LETTER.

Vol IV APRIL, 1851. No 3

PHILADELPHIA, March 18, 1851.

MESSRS. JONES, WHITE & Co.

*Gentlemen*:—Enclosed you have a copy of my remarks on the propriety, as I deemed it, of rescinding the amalgam pledge, which was read before the American Society of Dental Surgeons, at their special meeting, held in Baltimore, March, 1850.

I have taken the liberty of sending them to you for publication in the forthcoming number of the News Letter, that the grounds upon which I argued for the rescision of the pledge may be fairly understood, as I am well aware that they have been much misstated, without intention on the part of any one to injure me or the cause I advocated.

By giving the article a place in your useful periodical, you will confer a favor on

Yours respectfully,

E. TOWNSEND,

Locust street.

MR. PRESIDENT:—After very careful consideration, and in a spirit which I feel I can trust, and which I think my brethren will appreciate, I rise to call the attention of this body to a subject which I approach with so much apprehension, that I would gladly avoid it altogether, if I could do so, and preserve the full approval of my own feelings.

At your meeting held in August, 1845, I gave my signature to the pledge and protest against the use of amalgams for filling teeth. The *doctrine* of that pledge was and is in perfect accordance with my own views. I never used any form, or compromise, or evasion of the mortar, and I have not the least idea now that I shall ever change either my opinions or my practice in respect to it. Understand me, that I gave my assent in the fullest manner, to the idea and doctrine enforced by that pledge, and that nothing of change has passed upon my views in that regard since.

I stand *now* just where I stood then, in my judgment of the practice which I condemned.

But, sir, while I have kept faith to that pledge scrupulously, and intend to follow a conformable practice hereafter, I nevertheless desire, for other reasons, the pledge shall be rescinded, in such a way and under such conditions, as shall meet the views of all parties, if that can be done; and if it cannot, I shall have accomplished an end as important to myself—I shall have signified my own assent to the rescision of the rule, and for that only I am responsible. With this I shall be content, with *less* I cannot be. I give my voice for the abrogation of the pledge; I give notice of my readiness to repeal it in any way, consistent with the harmony, and honor, and well being of the Society, which can be devised; but I do not allow myself to offend against any of these interests, or violate any of the proprieties of membership to accomplish it. I simply put in my plea for the principle of liberty, and while asking this for *all*, and asserting it for myself, I will allow it to as many as may still differ from me; and I will not only allow them their liberty, but they shall have it in peace. I not only do not aim at reviving the controversies of the last five years, but I positively refuse to enter into any such strife. I take my own ground merely, and I leave every other inch of the wide world for the occupation of others who may desire a difference of opinion. Let me very plainly suggest a few of the reasons which govern me in coming to this conclusion, and taking the ground which I do. First, an authoritative decision of this question, backed by the penalty of expulsion from the Society for non-conformity, is, whether right or wrong, only a mode of effecting an object, and though right, may still be unnecessary. I do not deny that the Society may expel for malpractice as well as for malconduct. Societies have a right to take care of themselves, and they must do it in the way that seems wisest and best, and accordingly, I have tacitly, if not otherwise, consented to the enforcement of this penalty heretofore; but, as I said, it is only a mode of effecting a purpose, and it may not be necessary, though just; and again, though admitted necessary at one time, may not be so at another, under other circumstances. Five years have nearly elapsed since this law was enacted—five years bring great changes in conditions, though they alter no principles. Five years of experience,

under the sharp discussions and sharper government of this question, must have pretty well served all the purposes of such a measure. If five years have not done it, fifty cannot. If it compels nobody and convinces nobody, it must either be repealed as inexpedient, or left to grow obsolete upon your records—wear out it must, either because all resistance ceases, or because the resistance maintains its ground. But I really believe the Society does not now need the rule for any of the purposes which then induced its adoption. The Society has done all that men can do, the very utmost that can be required of it, to signify its opposition to the practice, and make it effective. It has published its condemnation abroad to all the world, and it has sacrificed the co-operation of men in other respects in every way worthy of its highest regards, and none the less worthy that they would not sacrifice a conviction or a principle honestly entertained, however erroneous it might be, if an infallible tribunal could be found to settle it. I do not think questions in natural science can be settled and decided by the legislation of majorities. Nevertheless, I do think an association has a right to protect itself against injury, and has a right to forward its legitimate intents and objects, by declaring its judgments, and enforcing them, too, in all matters of opinion and practice which concern its corporate existence.

It was to the expediency, the felt necessity of settling this vexed question, that I yielded in signing the pledge, refusing to sign which excommunicated men whom I think it an honor to call my professional brethren—and I would, just as they did, have refused compliance, and excommunicated the Society, if I had been convinced as they were.

An expediency, in the nature of things, must sometimes die out—it is only a contrivance to forward an end, and if the end comes it is useless, and if it does not come it is worse than useless. We took away no right of the expelled members when they were driven out, for we had the fundamental right to say on what terms we would hold fellowship and divide responsibilities with them, and if it was not over-logically constitutional, it was equitably constitutional, which was better. The majority did it, and it made the constitution itself. It did just what it wanted to do; and I know of no rule of morals or law which can hold any member of the majority any more than of the retiring minority, in a

voluntary association against his will. We took away no right of the expelled members, for we left them just where we picked them up, and broke no bargain which they had a right to rely upon. No man ever meant by entering into the Society, to endure any unexpected evil that might arise, simply because the constitution, in terms, gave him no power over it.

The Society is always as competent to take care of itself as when it is constitution making, and it has its choice to make the constitution answer in time of need, or dissolve the association, and form a new one. I think the shortest way is the best, provided men keep their temper, and just do what they must in the most agreeable and easy way to all the sufferers. Assert that any number of men, any way qualified, have the right to decide a question of opinion, or broad unchangeable principles, and I rebel, and refuse all part and lot in the minority. This Society has a right to say, we believe the use of amalgam to be malpractice. Every man of us has the individual right to say this. *I*, for myself, do say it, and the Society, as an aggregate, has certainly not forfeited its individual rights. It has, in fact, gained another right, because it has, by its union, encountered another necessity. It has a right to expel those whose practice discredits or endangers its reputation, or in any way hinders its purposes, or disturbs its peace or happiness, or crosses its caprices, or anything else necessary to it. The pledge goes the whole extent of these claims, but it goes no farther—for, if we gravely undertook to pronounce decrees, with pains and penalties, away out of our reach, in the free region of universal opinion and eternal progress, we should be only laughed at.

There has been enough of book burning, and heretic roasting, and creed crushing. Gallileo went down upon his knees, but still the world went round none the less; and although the government of Paris prohibited the use of tartar emetic in 1566, and then seventy years afterwards, upon further reflection, allowed antimonial wine to be put in the list of purgatives, it still held its right to turn people's stomachs in its own way.

I think I know what is wrong for me to do, and I must say so, and I will speak out upon what I believe to be absolutely wrong in itself, but I make no laws about it. I forge no fetters for the mind. Bless me, shall I say to every ship that is launched, sail

by this *old* chart, and see that you pursue no new passages, discover no new islands, touch at no new shores. If men will judge and govern other minds by their own, then the unknown comes to be the untrue, and stupidly enough, without pretending to know everything, they decide on the assumption that they do.

“Ah, (but say you) this *is* wrong.” Why, my dear sir, that may be the very thing which *you* do not know, and it is just because somebody else thinks it right that you are forging handcuffs for it. See, your opinion is disputed, yes, or else you would not be dissatisfied or fighting for it, and it is not unquestionable, for it is questioned. Wait till nobody disputes your point, and then seal up your decree; then only it will not be wrong, it will only be *useless*, and that is the best thing that can be said of settling questions of opinion by authority. If our pledge has served our turn, let us rescind it; let us not retain it because its opinion is right—for though this be so, still we must have some other reason, some convenience or necessity of our own to provide for by such dictation. This, I think, does not now exist. We have given the world notice of our doctrine, notice enough, and we have been severe enough in our way of doing it, and hereafter we neither need to keep our own hands tied, nor have our doors barricaded against the entrance of the freshest and boldest spirits who would seek our association. See, if we retain this pledge, we only govern and control ourselves, who need no such restraint, and we keep out brave, true men, who think differently; and if any of adverse opinion do come in under the yoke, it is in hypocrisy. That is the real disadvantage of embargoes upon opinion. They give rise to smuggling, and they restrain commerce at the same time—they spoil the legitimate, and encourage and compel the contraband trade. There are other questions on which we might as well divide as this—as, for instance, upon the treatment of the exposed dental nerve. I think it capital practice to destroy and remove it, and fill the fang to the apex. There are men over whom I would not have the presumption to claim superiority, and whose opinions I hold in high estimation, who forbid the practice—but I cannot surrender *my* convictions. I insist upon my own difference of opinion and practice, and will not willingly abandon them, and from this need of my own, learn to respect other men’s uncontrollable impulses. Have I reconciled



my own submission as well as the resistance of expelled members to the pledge? Have I taken the restriction from the supposed basis of everlasting principles, where it ought not to rest, and put it upon the ground of justifiable expediency, where it could stand? Have I preserved my respect for the right, while I advocate that consistency of principle which is above all *persistency* of action? Especially, have I duly honored the conscientious differences of views and wishes which may divide my friends from me upon the policy of this measure? I can truly say that all this, at least, I intended. My ultimate aim and wish is to relieve the association in which I hold an honored membership from the incumbrance of regulation which now regulates nothing needing restraint, and restrains only the progress and prosperity it was designed to promote. My immediate aim was to announce my own wishes to encourage others to come forward, if there be any, and above all things, to disburden myself of a seeming assent to a law which I would have abrogated, if it can be done every way rightly, and in proper regard for all our mutual relations and common objects. I protest again, that I will not disturb the harmony of this Society with this question. I say I will not even complain of the continued maintenance of the offensive resolution. It is in my heart to work for the Society's best interests, not against them. To me the time is fully come to let down the bars, and to admit men, *young men*, who will not endure the muzzle. Such I wish to attract, such I wish to secure. This thing of taking care of the soundness of the faith is more often the grumbling narrowness of declining and decrepitude than the vigorous and well-balanced strength of quickness of feeling. While we stand fondly guarding some darling little enclosure, which we have fenced in with fearful and ferocious vigilance, we might, as a body, be on a voyage of discovery for some new continent of knowledge, rich as the mines of Mexico to old Spain, and wide as this continent to ancient Europe. Will any friend move for a committee to consider and devise the measure which, perhaps, we are generally ready to adopt? I say, will some friend make such a movement? To put my motives beyond all suspicion of self-will and pertinacity of opinion, I decline to urge any practical step. I look to the men most active in favor of the measure, to the men ablest and boldest in its defence, let me say to the men

who have the most of private and personal feeling to sacrifice, to the men whose convictions against it are the deepest, to take the initiative—for, entertaining a real unfeigned respect for the opposite sentiment, and for those who hold it strongest, I would hesitate long before I would, even for the sake of the Society's immediate advantage, put my honored friends in a position that could give them pain. Nay, it is so. I believe with others who think with me. They, like myself, hesitate only because they cannot forget or undervalue the zeal and devotion and ability of the services which have been employed in their common cause, and then, perhaps, most warmly, when pushing this very measure which we now desire to supercede. Arrested by this feeling of deference for men who are entitled to all my regard, for all reasons of personal and professional worth, checked by the anxious solicitude I feel for the harmony and happiness of our assemblages, having said what was in my heart fully, though freely, I withdraw the wish a moment since expressed, and respectfully suggest that no action shall be instituted now, but that it abide a year's dispassionate reflection, and the issue and decision will be right and prudent, and true, too, I cannot doubt.

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For the Dental News Letter.

ON THE PRINCIPLES TO BE CONSIDERED IN THE PRESCRIPTION AND COMPOUNDING, AND THE CONSTITUTION OF POWDERS AND WASHES FOR THE TEETH AND MOUTH.

BY GEO. J. ZIEGLER, M. D.

MESSRS. EDITORS:—In glancing over the pages of the April number of a medical journal, published in one of our large Northern cities, I was much surprised to see a notice, purporting to be editorial, commendatory of a dentifrice and wash for the teeth and gums, the *formulæ* of which are reserved as a *secret*, prepared and for sale by a practical dentist of that city. Now, this savors very much of quackery, and, from the editor of a medical journal, (I do not specify, because my design is not personality, but, exclusively, opposition to a pernicious principle,) we should expect something better, as the great object of its institution and publication is the diffusion of knowledge upon all subjects directly or indirectly connected with the *ars medicina*, and, of course, anything promising in the least for the mitigation or removal of the

inconveniences and ills of life, should be given freely for the benefit of the many, and not withheld for the aggrandisement of a few, it being altogether contrary to the great and liberal principles of the medical profession to use, support, or contribute, in any way, to the extension of secret remedies.

The treatment of the teeth and tissues of the mouth, by means of dentifrices and washes, is of the highest importance, not only for the preservation of the health and lives of individuals, but also of communities, and through them of future generations; for if persons in early life lose their teeth, the diminution of health will generally be proportionate, and, in consequence, the organization of the progeny of such persons will not be as perfect as it would have otherwise been; while the duration of the lives of both the parent and progeny will be considerably shortened. Statistics have, however, shown that life may be, and is prolonged, to a certain extent, by the use of the artificial substitutes, so admirably improved and adapted for the purposes of mastication, &c., at the present time.

The *objects* which the employment of powders and washes is desired to attain may be included in the two great classes of, first, the immediate or more direct; and second, the remote or ultimate. Under the former will be comprised first, the prevention and removal, when deposited, of the salivary calculus, (shown to be composed of animal and vegetable parasites and their debris;) second, the particles of food, and the products of their decomposition, from the cavities and interstices of the teeth and mouth; and third, the correction of the injurious tendency and action of the vitiated and abnormal saliva. This latter, when healthy, being generally alkaline in its reaction, although by some observers it is stated to be alkaline at one, and slightly acid at another period of the day, its salts consisting principally of the phosphates of lime and soda, the chlorides of sodium and potassium, and the lactates of soda and potassa, whilst in the diseased or modified condition its constitution assumes a highly acid character; hence its reaction with, and affinity for the calcareous matter of the teeth, causes a decomposition and diseased state of those beautiful, useful and essential organs, of an insidious, but certain, and sometimes exceedingly rapid character.

The other great objects of importance, or the remote, are the

preservation, or cure when diseased, of the teeth and tissues of the mouth, thus through them promoting the still more ultimate ones, of the functions of mastication, insalivation, digestion, and all those processes dependent upon this necessary preparatory condition of the food, and finally so essential to the existence and well being of the individual.

The *means* by which these desirable objects may be obtained are of two kinds, viz., first, by remedies addressed to the whole system, or general treatment; and, second, to the part affected, or local treatment. In numerous instances, however, the institution of both of these courses is required. Our intention at present is to discuss the latter only, or rather a branch of it.

The numerous powders and washes so highly lauded and recommended, for the preservation and cure of the teeth and mouth, may be classed, according to their properties and effects, under the three principal divisions of, first, the *physical*; second, the *vital*, or those acting through the vital influence induced; and third, the *chemical*.

In the first, *physical*, are included all those powders and washes, which act only mechanically, and by simple separation of the particles, or by dilution, thus breaking down and removing the matter with which they come into contact. One of the most prominent of the former of these is the powdered pumice stone, consisting principally, as it does, of silica, must necessarily, from its hardness, be destructive to those substances of less hardness than itself, which fact is exhibited, when employed as a dentifrice, by the destructive disintegrating influence upon the materials of the teeth. There are, however, some of this class, nearer in composition and hardness to the components of the teeth, which, if properly used, are undoubtedly very beneficial, examples of which will be mentioned subsequently. Of the diluents, the principal and most important is, obviously, water.

In the second division, viz., the *vital*, or those acting medicinally through the induced vital power, a prominent and very old domestic one is the tincture of myrrh. On an examination of its properties it will be found that it is a stimulant, tonic and astringent, possessing no other depurative properties than those belonging to such agents, hence can act only on the tissues of the gums and cavity of the mouth, which it undoubtedly does, in

common with all similar washes and powders, they being composed of analogous substances, having the same general properties; and in this way they can be of service only by promoting a healthy condition of the tissues to which they are applied, assisted by the mere physical action of the fluid, and the brush, or other article used in cleansing the mouth.

The third division, or the *chemical*, will comprise all those agents acting chemically, the acids and alkalies being the principal. In almost all of the dentifrices, and many of the washes, so extensively advertised and lauded at the present time, there is a portion of acid, which, although it acts very effectually in temporarily cleansing and beautifying the teeth, by whitening them, does so at a fearful cost, by destroying the integrity of their structure; these agents having generally a great affinity for lime, which, it is well known, is the basis of the osseous part, and of course the teeth inclusive, of the animal organism; hence, in consequence of this great attraction for that substance, they seize upon and unite with it, forming a salt of the particular acid employed; thus gradually the calcareous matter is broken down and removed, producing that crumbling condition often resulting from an highly acid state of the salivary fluid, and so well known to practitioners, and leaving, frequently, the animal tissue greatly diseased, and so exceedingly sensitive, that the unfortunate possessor of such teeth suffers almost as much, though not so severely, as if the dental pulp was exposed; and requiring for its successful removal, preparatory to filling, the utmost skill and patience of the operator. Consequently the acids are entirely objectionable, for there does not appear to be a single case in which they would be so strongly indicated as to justify the risk of the injury certainly resulting from their employment.

The alkalies, on the other hand, seem to be peculiarly appropriate in the majority of, if not in all, cases, for, from the constant changes in the fluids of the mouth, arising from the local and general modifying influences upon the functions of special organs, as well as of the system generally, particularly in this country, the secretions are consequently continually varying in their character, and none probably more so than that of the saliva, it being in health, as before stated, usually alkaline, but when modified becoming most generally of an acid reaction, the intensity of this

being commonly in accordance with the modification of the salivary fluid, easily tested and exhibited by test paper; hence it is evident, that by the use of the alkalies, thus neutralizing the acid of the saliva and substances decomposing in the mouth, this destructive process of decomposition and disintegration of the teeth will be prevented or retarded, if not completely arrested.

It would appear, however, from an investigation of the properties of these various classes of remedies, and their relation to the conditions in question, that none of them separately fulfil all the indications which are required and desired in their employment.

Now, in the successful prevention and treatment of disease, there are several indispensable preliminary points to be ascertained and understood, and first, what are the objects to be attained; second, the mode and means of accomplishing them; third, the true indications requiring to be answered; and fourth, the fulfilment of those indications by proper remedial agents, possessing suitable properties, or by those measures included under the term of hygiene.

Having glanced at the former of these, it will now be proper to consider the latter, viz., the true indications to be answered, and the fulfilment of them; and in the subject under consideration there seems to be several, each one of which is of the greatest importance, and frequently inseparable. The first is, the removal of those substances which accumulate around the teeth, and in the mouth, by a mechanical action, being in many cases all that is required; this is furnished by the frictional and dilutive action of brushes, water, &c.; secondly, a vital action on the tissues of the gums and mouth, thus preserving, or regaining, when lost, their tonicity, which may be secured by means of stimulants, alteratives, and depuratives, such as astringents, very valuable ones of which are galls, or a purer astringent, tannin, alum, &c.; tonics, as cinchona; and alteratives or depuratives, as chloride of soda, muriate of ammonia, &c.; the third, a chemical action on the fluids of, and the contaminating principles from the decomposition of substances in the mouth, to combat and modify, if not to completely overcome, their injurious tendencies and actions; and, as the acids are these destructive agents, the resort to those remedies which would neutralize, and thus supply them with the same or a similar article to that which they would otherwise



derive from the teeth, would be indicated; this, it is obvious, could be furnished by the alkalies, the best for the purpose being soda and potassa. These, in addition to their neutralization of the acids of the fluids of the mouth, seem to exert a destructive and decomposing power over the parasitic deposits about the teeth. Although, according to the experiments of Dr. Bowditch, "soda, ammonia, and various other popular detergents, did not affect their vitality in the least," yet "the application of soap appeared to destroy them instantly." Now, the hard soaps principally have for their base soda, and as the "purest white soap" is recommended, it necessarily follows that, to be so, it should be divested of all impurities; hence, it must consist almost exclusively of the base soda and the fatty and oleaginous matters, or rather their acids in union. The vegetable oils being generally employed in the manufacture of the finest soaps, therefore they are a purer compound of oleic acid and soda, or an oleate of soda, though they are mostly associated in varying proportions with the other fat acids. Consequently it is presumed, from the known properties of fats and oils, and their common acids, stearic, margaric and oleic, that they will not destroy or remove these salivary deposits; hence, the beneficial influence of soap would appear to depend upon the base soda, or probably the salt resulting from the combination of the acids with the alkali: these bodies frequently possessing properties entirely different from their constituents, which, by their action upon and reaction with the components of the calculus, (it being principally composed of phosphate of lime,) causes a dissolution and decomposition of that substance with the consequent formation of the respective salts of phosphate of soda, and oleo-margarate or stearate of lime, according to the proportions of these several acids.

It would seem, from the fact of the alkalies alone being incompetent to the dissolution and removal of these accumulations, that it requires for their action the interposition or assistance of some higher attractive or decomposing power than they separately possess; in other words, that single elective affinity is not adequate to the induction of the reaction of these agents, but for the successful decomposition requiring the superior influence of double elective affinity, similar to many other conditions necessary for chemical changes. Hence, instead of the simple alkalies, the

employment of their salts would seem to be most appropriate; thus, the carbonate of soda, or potassa, soap, &c.; those containing the more active acids being obviously contraindicated.

Taking these views into consideration, therefore, it becomes necessary, in accordance with the indications presented, and their fulfilment, to resort to those substances possessing the peculiar properties required, and combining them in such proportions as would be most appropriate to the special condition under treatment, although for general use the components and proportions may be so arranged as to be well adapted to the majority of cases.

In accordance with the above described principles, I have always endeavored to suit my remedies to the particular case presented, modifying the treatment according to the circumstances, and with a success with which I have been much gratified. But for general application I have found the combination of the several agents, as expressed in the subjoined formulæ, very useful. That for a dentifrice which I ordinarily recommend and prescribe, and to the beneficial effects of which I can testify, from an almost daily personal use for years, is the following, viz:

R. Testa Præp.,	3viij.
Gallæ Pulv.,	3iij.
Sodæ Carb. Exsicc,	3ij.
Cochineal,	3ss.
Alum,	3j.
Ol. Rosæ,	gtt. iij.

M. et. ft. pulv. for dentifrice.

The teeth should be cleansed with this powder at least once a day, and that period should be at the close of it, just before retiring for the night, as it is so much the custom, among young people, particularly in the evening, to indulge in those articles, such as cakes, ice cream, sweetmeats, fruit, &c., which have a tendency to a rapid change, being converted into those agents so destructive to the teeth. By removing, however, immediately before retiring, all those particles of the various materials of the food which have collected in the cavities and interstices of the teeth, this injurious action will be prevented, whilst otherwise they will remain and undergo those changes peculiar to them, and produce, during the period of repose of the system, much more injury than in those hours when the system is active and the

secretions more abundant, thus, from the inconvenience and by dilution, exciting and facilitating an action for their removal.

The following is the formula for a Wash which I frequently use, and with great advantage, in those cases of chronic, relaxed, and depraved condition of the gums often accompanied with ulceration.

R. Liq. Sodæ Chlorinat.,	f ʒss.
Tinct. Gallæ,	f ʒiiss.
Ammoniaë Muriat.,	ʒij.
Mel. Opt.,	f ʒss.
Aquæ Rosæ,	f ʒiiiiss.
Misce.	

This should be used two or three times a day, according to the severity of the disease; and if there should be much irritation of the tissues of the mouth, a sufficient quantity of any anodyne, not incompatible, might be added, such as the tincture of aconite, or muriate of morphia, although this latter would be apt to react with the astringent. In place of the tincture, an infusion of galls, of oak bark, or of tannin, might be substituted where they were more convenient; the two former being modifications of the latter vegetable astringent principle.

Very frequently powders or lotions, having for their astringent principle alum, or acetate of lead, will be found of great service; the former particularly, in those conditions termed aphthous. The following I have never known to fail, in cases of local apthæ of a comparatively mild character, and not dependent upon any great derangement of the general system, as it very frequently does, which, of course, requires, in addition to the local, the institution of general treatment.

R. Alum Exsicc.,	ʒss.
Sodæ Borat.,	ʒj.
Saccha. Alb.,	q. s.
M. ft. pulv.	

This may be sprinkled occasionally on the ulcerations, and by the dissolving agency of the saliva, and the action of the tongue, cheeks, &c., it will be diffused throughout the mouth; and in cases of children it will be found very appropriate, as the sugar

gives it an agreeable taste, and sufficient should be used for that purpose, thus rather causing it to be desired than rejected.

The solution of Acetate of Lead is more appropriate in those cases of swelling and ulceration resulting from the inordinate effects of mercurial salivation.

I have thus given a few examples of those remedies which are undoubtedly efficacious in numerous instances, but there are others which are equal and superior, in many respects and conditions, and are required and frequently employed by the physician in those cases which it is his more particular province to treat.

In conclusion, I must apologize for the errors of expression, and deficiencies of arrangement in this paper, having written it very hastily, and on the spur of the occasion, and although beauty of diction and order are very desirable, yet *facts*, even if expressed in a plain, inelegant, and irregular manner, are still vastly *most important*. If, therefore, these desultory remarks should elicit more correct views, and induce a more liberal feeling with regard to the promulgation of information upon these and other important subjects, thus assisting in disseminating knowledge, and in breaking down and removing the selfish, illiberal, and injurious practices and principles of those engaged in the support and sale of secret remedies, the design of this article will have been accomplished.

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For the Dental News Letter.

## AN ESSAY UPON CLASPS FOR RETAINING PARTIAL SETS OF ARTIFICIAL TEETH IN THE MOUTH.

BY CHARLES A. DUBOUCHET, M. D.

[Read before the Pennsylvania Association of Dental Surgeons, February 7th, 1851.]

MR. PRESIDENT,—In accordance with the rules of this Society, it has been your pleasure to appoint me to prepare an Essay on some subject relating to our profession. That much good may be accomplished by following up this method, every member of this society must feel convinced.

The high tone of improvement pervading the dental community demands at our hands a continuance of efforts to keep in the onward track.

The "Dental News Letter" affords us such an excellent channel to diffuse throughout the land whatever information we may have to impart, that we should not neglect to improve the opportunity. The papers published in it upon "Filling Teeth," and "Mechanical Dentistry," as well as upon other subjects, contributed by our members, have shed upon the Pennsylvania Society of Dental Surgeons a lustre, in the bright effulgence of which any dentist may *well* feel proud to bask.

Under such circumstances, the task allotted me becomes important, and such precedents render me conscious of inability. Still, Mr. President, deeming it a duty and an honor, and relying upon the indulgence and proverbial kindness of our members, I shall proceed to make a few remarks.

Lately great improvements have been made in Mechanical Dentistry. First in the rank we notice atmospheric plates, used for the insertion of one or two teeth, in the place of the old-fashioned plates with clasps; and our fellow member, Dr. White, is among the first to have given his attention to this new mode of insertion.

This seems to be, indeed, an improvement, and the more we have investigated the matter, the more we have become convinced of its utility. Thousands of *healthy—sound—beautiful* teeth have been sacrificed, without remorse, by our professional predecessors, in their now obsolete practice of making their clasps as small as possible.

A case in point has just come under my notice; allow me to exhibit one of the victims to that erroneous custom of the dental dark ages. And would you believe it? the subject of this malpractice is not a venerable grandmother, she is an interesting young married lady; showing that the abominable practice of clasping cuspidati is yet rife in some parts of this continent. A few years have sufficed, in this case, to destroy, to all intents and purposes, one of the most important teeth in this patient's mouth, besides causing her exquisite sufferings whenever partaking of sweet or acid aliments, cold or warm drinks.

This illustration, if known to any conscientious dentist, would, I am sure, deter him from constructing similar contrivances.

The effect of narrow clasps is likewise injurious upon bicuspid and molars. We well remember a case, which occurred some

two years since, in which four molars and two bicuspid were destroyed.

In order to conceal them from sight, the clasps were fastened upon the second molars, and made of small, half round wire, running along the first molar and second bicuspid on either side of the mouth.

The plate was very narrow, and the whole weight of the apparatus devolved upon the back teeth. In a short time violent inflammation of the gums supervened wherever the wire touched; palliatives were resorted to, and the patient not being very sensitive, persisted in wearing the teeth.

In a few years, one of the second molars having fairly been drawn from its socket, dropped in the mouth, still clasped by the wire, and caused the patient to apply for advice. Upon examination, we found the roots of the five remaining teeth exposed to their very apex, the lingual side of the alveolar entirely absorbed, and each tooth had a groove as nicely cut into it as might have been done with a saw.

In order that the two preceding illustrations be not supposed to be extreme cases, and of unfrequent occurrence, we beg leave to allude to another, in which the two canine teeth were destroyed although the plate was large. Eighteen months sufficed to expose freely to view the nerves of both cuspidati. Another set of teeth was now made, with two more teeth, and clasped, as previously, to the nearest teeth, the first bicuspid on either side, and the result was similar.

Both this, and the artificial piece alluded to in the preceding illustration, were executed in a workmanlike manner, and evinced great mechanical skill, which, however, could not atone for want of judgment, and the pernicious effects of the small clasps.

Some three years ago we were consulted by an Eastern lady, who a few years previous had a lateral incisor replaced by the present arrangement. Any respectable practitioner might be puzzled to tell in what manner such a contrivance could possibly be retained in the mouth. Still, it was tolerated there nearly three years, and particular attention was only called to it from extreme sensitiveness in the canine tooth adjoining.

Upon examination, we found this appendage wafting to the



gentlest breeze caused by the breath of the fair patient; considerable *engorgement* of the gums above and around the adjoining cuspidatus, and a sort of ring beneath the loose edge of the gum, as often produced by tartar. Still we could not account, from the construction of the artificial tooth, how it was so tenaciously held in its clapper-like position.

However, the application of a scaler to the supposed ring of tartar, showed it to be metallic.

The dentist had cut the gordian knot. Unable to make the artificial tooth remain in the mouth, he had tied it fast to the next tooth by means of two turns of fine silver wire. The result was a complete exposure of the nerve, and consequently the loss of a valuable tooth, which it became our duty to replace.

These instances have multiplied to an infinite number, and are daily related to us by patients in all their details, losing nothing of their beauties by circulation, and thus:

“Mr. So-and-so is no better than he should be. He ruined that lady’s teeth. He ought to be sued for damages. I would not have suffered him to treat me in such a manner.”

There may or there may not be truth and justice in these complaints; the dentist may be ignorant, eager for gain, or unprincipled. But it also sometimes happens that the patient is the very cause of such mischief being inflicted, by beating down the dentist’s price—wishing him to insert a set of teeth for less than actual cost of materials, if made in a professional manner.

In such a case, we can neither entertain sympathy for the sufferer, nor make any apology for the dental practitioner.

We are fully convinced that narrow clasps are injurious, and have not the least doubt that the larger number of the profession entertain the same opinion.

Of late years, respectable dentists have abandoned the practice of clasping with small, half round wire, and have made it a point to use a clasp as broad as the tooth would permit. The size of plates has also increased; and under such modifications, we cannot say, from actual experience, that teeth have been sacrificed, nor do we deem it likely. Still, it must be obvious that, in dispensing entirely with clasps, when the nature of the case admits of it, we eradicate even the shadow of a doubt, in the patient’s mind, as to the propriety and safety of inserting and wearing artificial teeth.

For the Dental News Letter.

## REPORT OF THE PROCEEDINGS OF THE PENNSYLVANIA ASSOCIATION OF DENTAL SURGEONS.

A stated meeting of the Association was held December 3, 1850. President, Mr. C. C. Williams, in the Chair.

Minutes of previous meeting read and approved.

A report from the Librarian, Mr. S. S. White, showing the condition of Library and Cabinet, was now read and accepted.

Some discussion now took place in reference to establishing a Dental School in Philadelphia.

The relation of several very interesting cases of the retrocession of the gums, the appearance of them, and structure of the teeth, the treatment, etc., was now given by several gentlemen.

Dr. J. D. White urged upon the members the great necessity of having one or more essays for each meeting of the Association, and showed clearly the profit that could be derived, and the instruction imparted, by such a course, and he hoped all would feel called upon to prepare an address.

The President, Secretary and Treasurer, were appointed an executive committee to transact all the secular business of the Society.

The Librarian was instructed to subscribe for several periodicals. Adjourned.

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### TUESDAY EVENING, February 14, 1851.

A stated meeting of the Association was held this evening. President in the Chair.

Minutes of the preceding meeting read and approved.

Committee on the progress of the Association reported verbally, and were continued.

Examining Committee offered the names of the following gentlemen for membership, Messrs. Elisha Townsend and J. L. Suesserott, when, on motion, the rules were suspended, and they were unanimously elected.

Some discussion was now had on a proposition to meet monthly, instead of quarterly, which subject was finally postponed.

Dr. DuBouchet read an Essay upon "The use of Clasps for retaining partial sets of Teeth in the mouth." (It will be found

in the present number.) Some discussion ensued on the subject of the essay, in which many members participated, and which occupied the balance of the evening.

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TUESDAY EVENING, April 1, 1851.

A stated meeting of the Association was held this evening. President in the Chair.

Minutes of the last stated meeting, and also of a special meeting held March 4, 1851, were read, and, after some correction, approved.

Secretary read a communication from Dr. Parry in relation to the charter of a Dental College.

The Examining Committee offered the name of Mr. William Fouche, of Philadelphia, for membership, when, on motion, the rules were suspended, and he was unanimously elected.

Some discussion now took place in relation to the treatment of the dental nerves, in which several interesting cases were instanced.

On motion of Dr. J. D. White, it was Resolved, That the Association should hold a special meeting on the second Tuesday in May. Adjourned.

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For the Dental News Letter.

### THE USE OF THE FORCEPS.

MESSRS. JONES, WHITE & McCURDY:—You will pardon me for once intruding a few lines upon your patience, for an insertion in your valuable Dental News Letter. I have thought, for several months, I would prepare a communication on the use of the above instruments; but never setting myself to the task, the paper has been deferred till the present. Many have been the circumstances that have, from time to time, suggested to my mind the propriety of writing such an article. From the "many," I will select a few.

Mr. P. called to have a tooth extracted. Upon my taking the forceps, he turned away his face, and raising his hand, exclaimed, "No! no!! you don't put those things into my head. Dr. A. came near taking it off with just such things as those." I succeeded in convincing him that, from my variety, I had the instrument that was perfectly adapted to the tooth affected; consequently he permitted me to extract the tooth, and so astonished

was he to see the tooth firmly in the beak of the forceps, and removed with so little pain, that his first ejaculation was, "Jerusalem!" (and putting his finger upon another decayed tooth, said,) "there, just take hold of that." I was in Doctor A.'s office a few days after, and being familiar with him, asked to see his forceps. He produced one solitary pair only; and if such instruments were continually upon my table, I can conceive of no case in which I should require their use, and in fact but very few in which they would be in the least degree applicable.

Dr. T. informed me that he drew almost entirely with forceps. On producing his instruments, I found only two pair, one for the inferior bicuspid, the other for the left inferior molars. These forceps were of good shape and style for the teeth to which they were adapted. But he, honestly enough, assured me that he extracted more molars with the bicuspid instrument than with the other pair, saying, "he found them more handy for many teeth," convincing me that he had no correct knowledge of the use of the forceps, neither that they were applicable to certain particular teeth and no others.

Doctor S. has some half dozen pair of forceps which are of good manufacture. In conversing with him, a short time since, I found he was not aware of the reason of the forceps being of different shape, supposing it was merely to give greater variety, and be prepared for *irregularity*, rather than be prepared for *all* the teeth in their *regular* position. He had not the first idea why the beak of one side of a superior molar forcep is pointed, and the other in the form of part of a circle, &c. He would as soon try an inferior molar or a bicuspid with it as any other, often making "poor suffering humanity" suffer more, and furnish another objection against the use of a good instrument.

A dentist in your own State, of several years' practice, has a requisite number of forceps, but they are of such size and form that the key, properly made and applied, would be preferable. He often uses the key, and says there are many teeth that can be much better extracted with it than with the forceps. Were there no better instruments made than his, I would say the same; but happily that is not the case. Could I have such a set of forceps *given* me, if I would use them, I should consider it no temptation; for sooner would I go back to the *ancient* custom of using the key.

I noticed an article in the "News Letter," Vol. III., No. 3, "On the use of the key," which also reminded me of the call for something to be given to its readers on "the use of the forceps." It has been twelve years since I commenced extracting teeth, at which time I was studying medicine. Of course, I used the key, and continued its use till I took my degree, after which I embraced an opportunity of learning dentistry of Edson Carr, M. D., of Canandaigua, a thorough and scientific gentleman, and to whom I am under lasting obligations for favors and instruction. It was then that I first became acquainted with the "use of the forceps." At first I continued to prefer the key, till perceiving, from time to time, how dexterously teeth were extracted with the forceps by his hand, I was induced to give them a further trial. I found, as I became more acquainted with the forceps, the estimation I had for the key grew less and less. I have now abandoned its use altogether. During the last eight years I have drawn only three teeth with the key, and those being from necessity, not from convenience, I being in the office of a neighboring physician, or some such circumstance. I do not set up myself to be a teacher in extracting teeth, but to my mind, extracting them with a key is bad practice, and much more turning them *in*, as recommended by some, and I have never failed of convincing those who see me extract teeth with my forceps, of their superiority over the key, and of their equal purchase and power, and particularly that their action is much more under the will and government of the operator.

Teeth being set in the form of an arch, the shape of the crowns, the curve of the fangs, all indicate, philosophically, that they should be drawn from within outwards. After having practiced some three years, I had occasion to apply to a neighbor dentist for the extraction of a superior bicuspid. Brother dentist took up the key, and commenced padding the fulcrum with a napkin. Upon my asking if he were going to draw it with the key, he replied, "I will convince you that it is not every tooth that ought to be drawn with forceps." Then bringing the key nearer my mouth, in position to place the fulcrum on the inside, again I interrupted him, but his reply was, "wait a moment, and I will show you how it's done." Well, he did, and "with a vengeance." The point of the fang curved outwards, as is generally

the case, and, setting aside the extra force used in breaking in the arch, any mechanic would naturally judge which way the tooth should be turned, following. The swollen and inflamed roof of my mouth for four weeks was a constant witness, for me, of the absurdity of using the key, of turning the teeth inwards, and of placing the fulcrum on the internal alveolus.

I not unfrequently have teeth to extract which have been *tried* by some other operator, and often the mangled gum and crownless fang show that the key has been used, and also how unfit for the purpose, especially when the tooth is easily removed with forceps, and the patient affirms how much more severe the "*trial*" (for surely it was a trial,) with the key than the *extraction* with the forceps.\* As yet, neither myself nor my patients have had any cause to regret the abandonment of the key, and the use of the more natural instrument, the forceps.

Yours truly,

E. N. CLARK, M. D.

Beloit, Wis., Jan. 27, 1851.

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For the Dental News Letter.

#### A NEW ANÆSTHETIC.

MESSRS. EDITORS:—Permit me to call the attention of your readers to the following article, which appears in the March number of Silliman's Journal, descriptive of a *new anæsthetic*, and its *superior efficacy* in the *production of local narcotism*. In the event of the further confirmation of the properties assigned to the agent therein described, it will prove to be, as it is, so far as tested, evidently one of great power; indeed, superior to any which we have heretofore possessed, and will be of almost incalculable advantage and benefit in the treatment of disease and the performance of operations, and particularly appropriate to those included in the practice of dentistry, the application to which is the design, more especially, of the present notice. Its properties rendering it peculiarly adapted to the treatment of the dental pulp, and that exceedingly sensitive condition of the animal tissue so often exhibited in the decay of the teeth, and the effectual and painless removal of which, preparatory to the more final operation, presents obstacles of no mean importance, as those who have it to perform can well understand and appreciate;

\* It is with teeth *most decayed* that I find forceps most beneficial.



I noticed an article in the "News Letter," Vol. III., No. 3, "On the use of the key," which also reminded me of the call for something to be given to its readers on "the use of the forceps." It has been twelve years since I commenced extracting teeth, at which time I was studying medicine. Of course, I used the key, and continued its use till I took my degree, after which I embraced an opportunity of learning dentistry of Edson Carr, M. D., of Canandaigua, a thorough and scientific gentleman, and to whom I am under lasting obligations for favors and instruction. It was then that I first became acquainted with the "use of the forceps." At first I continued to prefer the key, till perceiving, from time to time, how dexterously teeth were extracted with the forceps by his hand, I was induced to give them a further trial. I found, as I became more acquainted with the forceps, the estimation I had for the key grew less and less. I have now abandoned its use altogether. During the last eight years I have drawn only three teeth with the key, and those being from necessity, not from convenience, I being in the office of a neighboring physician, or some such circumstance. I do not set up myself to be a teacher in extracting teeth, but to my mind, extracting them with a key is bad practice, and much more turning them *in*, as recommended by some, and I have never failed of convincing those who see me extract teeth with my forceps, of their superiority over the key, and of their equal purchase and power, and particularly that their action is much more under the will and government of the operator.

Teeth being set in the form of an arch, the shape of the crowns, the curve of the fangs, all indicate, philosophically, that they should be drawn from within outwards. After having practiced some three years, I had occasion to apply to a neighbor dentist for the extraction of a superior bicuspid. Brother dentist took up the key, and commenced padding the fulcrum with a napkin. Upon my asking if he were going to draw it with the key, he replied, "I will convince you that it is not every tooth that ought to be drawn with forceps." Then bringing the key nearer my mouth, in position to place the fulcrum on the inside, again I interrupted him, but his reply was, "wait a moment, and I will show you how it's done." Well, he did, and "with a vengeance." The point of the fang curved outwards, as is generally

the case, and, setting aside the extra force used in breaking in the arch, any mechanic would naturally judge which way the tooth should be turned, following. The swollen and inflamed roof of my mouth for four weeks was a constant witness, for me, of the absurdity of using the key, of turning the teeth inwards, and of placing the fulcrum on the internal alveolus.

I not unfrequently have teeth to extract which have been *tried* by some other operator, and often the mangled gum and crownless fang show that the key has been used, and also how unfit for the purpose, especially when the tooth is easily removed with forceps, and the patient affirms how much more severe the "*trial*" (for surely it was a trial,) with the key than the *extraction* with the forceps.\* As yet, neither myself nor my patients have had any cause to regret the abandonment of the key, and the use of the more natural instrument, the forceps.

Yours truly,

E. N. CLARK, M. D.

Beloit, Wis., Jan. 27, 1851.

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therefore, anything favorable to the successful removal of these difficulties should be considered of the highest importance, and, I hope, will be acknowledged of sufficient, to *excuse this mode of directing attention* to a remedy so promising.

Respectfully yours,

GEO. J. ZIEGLER.

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“*Anæsthetic Action.*—(L’Institut, No. 886.)—M. Aran has made experiments on the *anæsthetic action* of certain agents used as an *external application* to the *skin*, and has found that the *best material* for this purpose is *chlorated chlorohydric ether*. The sesquichlorid of carbon may also be used; but whilst the *ether operates effectually in a few minutes*, at least two hours are required to produce insensibility with the sesquichlorid. To produce the desired effect, from 15 to 30 drops of the pure chlorated chlorohydric ether suffice; they are put upon the part in pain, or upon a piece of linen cloth, which is to be immediately applied to this part, and the contact is maintained by a bandage, and *quickly the pain is relieved*. A pomatum of this ether may also be employed, consisting of four grammes to 20 of suet; or if of the sesquichlorid of carbon, four of this agent to 30 of suet; it may be used either with friction or without. *The insensibility is not simply cutaneous, for it gradually extends to the parts beneath.*

“*The chlorated chlorohydric ether is obtained by the action of chlorine on hydrochloric ether*, by which compounds containing chlorine in increasing proportions are formed, isomeric with the series of bicarburets of hydrogen, and identical with the same series in the density of the vapor for corresponding compounds. It is a colorless liquid, of an ethereal aromatic odor, analogous to chloroform, and a sweetish and even peppery taste at times; hardly soluble in water, but wholly so in alcohol, sulphuric ether, and most of the fixed and volatile oils. It is without action upon paper of tournsol; is not inflammable; has a variable density and a variable point of ebullition, oscillating between 110° and 130° C., showing that the material is rather a mixture of several ethers than a single simple substance. *All the chlorated chlorohydric ethers have the same anæsthetic properties*, and they cannot be separated completely from one another.”

*Amer. Jour. of Sci. and Arts*, March, 1851.

For the Dental News Letter.

## A NEW IMPROVEMENT IN FORCEPS.

As there are few operations more dreaded than the extraction of teeth, so there are few in which more skill has been employed in constructing instruments for performing them. The forcep, that superseded the turnkey, has been improved by adapting the grasping points to the forms of all the different teeth, and by curving them so ingeniously as to reach every part of the mouth. In these respects the instrument has undoubtedly reached perfection. To make the forcep a perfect instrument for the extraction of teeth, I believe it is only necessary to add one more to the many beautiful improvements which have been made to it within a few years past.

In applying forceps to many teeth, especially those that are much decayed, a difficulty is experienced in opening and closing them with the requisite facility. The fingers, after being employed to open them, must be withdrawn, in order to grasp the handles and assist the retracting power; if at this stage the tooth breaks, the fingers must again be inserted between the handles, to open them for another grasp. Few patients have the endurance to suffer the instrument a long time in the mouth without disturbing the proceedings of the operator, if not frustrating his design entirely.

This want of command over the forceps seems not to be obviated by a spring, that only acts by holding the handles apart from each other, as they are thus often made to open at a critical moment, when not desired.

To obviate every difficulty in the use of forceps of this nature, I have applied bows to the handles, nearly similar to those of the most perfect of the large shears used by tailors. These bows, when properly adapted to the shape and size of the hand, enable the operator to open and close the forcep instantaneously, and be at the same moment prepared to use all his retracting force to the greatest advantage, and if the tooth breaks, to renew his hold with a facility unattainable with an ordinary instrument. There is also an advantage gained by transferring a portion of the retracting power to the bows of the instrument, as that much force is abstracted from the crushing tendency of the jaws of the forcep—a circumstance of considerable importance where a tooth

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is quite hollow, or its substance brittle, and at the same time firmly set in the jaw. I believe that reflection will convince the profession of the utility of this addition to the forcep, and if that does not suffice to convince, the experiment of using them, I am sure, will, as in practice they have surpassed my highest expectations.

M. DEPUY, Dentist.

Pittsburg, Pa., February, 1851.

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*Filling Teeth after the Lining Membrane has become Exposed.*—Dr. W. W. Codman, of Boston, informed us, while on a visit to that city last summer, that he had been in the habit, for several years, of filling teeth, under certain circumstances, after the lining membrane had become exposed, and with very great success. He also stated that he was of the opinion, from a number of experiments which he had made, that the pulp of the tooth, when the operation is successful, sooner or later ossified. He presented us with several teeth in which this had actually occurred.—*Am. Jour. of Dental Science.*

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#### OSSIFICATION OF THE PULP OF THE TEETH.

To the Editor of the Boston Medical and Surgical Journal.

DEAR SIR,—Seeing my name in an article copied by you in the Dental Journal, I beg leave to make some explanations in regard to it. Dr. Harris, editor of that Journal, seems to have forgotten the most important part of my statement, which was that I waited until the ossification had taken place before I filled the tooth. My principle is, to excite ossification, as surgeons sometimes do to fractured bones when indolent. And I have succeeded in doing it, in many cases, where the dental pulp is healthy, even though wounded. By cleansing the cavity, as if for filling, then protecting it with cotton from the air, and occasionally removing the cotton and lightly re-scraping the bone, a deposit, in time, will take place nearly as hard as enamel, when the tooth can be filled and retain its vitality. Twelve years' experience in this operation has proved this fact to me, that, under favorable circumstances, it can be done.

W. W. CODMAN.

Boston, Dec. 11, 1850.

# THE DENTAL NEWS LETTER.

APRIL, 1851.

We must beg the indulgence of our subscribers for the late appearance of the present number. We delayed its issue in the hope that we should be able to give our readers some description of the quantity and variety of dental work in the London Exhibition or "World's Fair," through one of our partners, who has gone to Europe for the purpose of gaining all the information possible upon those subjects in which the profession are interested, and also to increase our already ample means for the supply of all things necessary to the dental practitioner. We have been disappointed in the communication, from the fact that everything in the "Crystal Palace" was "in confusion," but hope to be able to give something more interesting in our next number. For the present we refer our readers to the letter :

LONDON, April 4, 1851.

GENTLEMEN,—I paid a visit to the Crystal Palace yesterday afternoon, and was disappointed in finding everything in confusion. But few goods are unpacked,—no fine or small articles.

Some immense bronze statues from Prussia—one of a lion, weighing eight tons—and some plaster figures, etc., were all that were to be seen. I noticed some beautiful specimens of stained glass in the galleries, which were being arranged.

The building itself is not completed, as a considerable portion of the sides are without the glass; but the expectation is, that it will be finished by the 1st of May; still, the exhibition will not be complete before June.

Representatives of nearly all nations are to be found in the building, all busily engaged in having their goods put in proper places.

The building itself equals the most glowing description ever yet given of it, and is really a world's wonder.

I have been informed that the goods from the United States were very roughly handled, in shipping and unshipping from the St. Lawrence. Cases and models broken, boxes stove, and all

from the most evident carelessness in stowing, or in allowing parcels to drop down the hold of the vessel.

I find, on inquiry, that bone bases or blocks are still used to a considerable extent in this country. I was shown a machine for getting up shell bases, which was patented, making it cost some £10, or fifty dollars. I thought, while looking at it, would it be possible to sell one of them in the United States?

The *tube teeth* are chiefly used here, although the dentists will generally acknowledge that the American teeth are the most permanent. But I must close, having occupied quite enough space already with the very little I have to communicate.

Yours, truly,

J. R. McCURDY.

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So much interesting and valuable matter has accumulated upon our hands, that we have concluded to extend the present number (with the view, probably, if circumstances warrant, of a permanent enlargement in the next volume,) by the addition of several pages, believing that, by so doing, our desire, as manifested for the advancement of the profession, will be appreciated.

Those who may make, or become acquainted with inventions or improvements connected with, or applicable to, the practice of the dental art, will not only promote their own interests, but also those of the profession, by informing or furnishing us with a written description as soon as possible. Everything so furnished will be duly acknowledged, and receive the most careful consideration, and a suitable place or notice in the News Letter; and by continuing the system we have hitherto practiced, of procuring *every new improvement and invention* as soon as practicable after its appearance, we shall be able to supply, in addition to our *Premium Teeth*, every article or material which may be needed by the profession, and hope, in this way, to prove our title to the purport of our establishments, viz. Dental Depots, or depositories of everything needed by the dentist, either in theory or practice.

All orders, as heretofore, will be promptly and carefully attended to, and filled up with the *latest manufactures* and best materials that we possess or can procure. And to secure more

effectually the wishes of our customers, we invite *definite orders*, so that there shall be no misapprehension on our part with regard to the peculiarities and character of the articles required.

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*Ether and Chloroform; their Employment in Surgery, Dentistry, Midwifery, Therapeutics, &c.* By J. F. B. FLAGG, M. D., Surgeon Dentist, Member of the Rhode Island Medical Society.

We have derived much pleasure from the perusal of this little work. It is a very good resume of the history, modes of preparation, and chemical constitution of ether and chloroform, and the constitutional and other effects of their inhalation, as observed more particularly by the author upon the human economy, showing the advantages of their employment preparatory to the performance of surgical operations, or during the activity of those deranged actions or natural functions of the system accompanied with much pain, such as parturition, &c., with clear and concise directions for their judicious administration, thereby securing their desired beneficial effects, in the reduction or complete annihilation of sensibility, and consequent mitigation or prevention of pain, and the means of obviating their injurious tendencies and consequences.

With regard to the inhalation of ether in parturition, the author expresses himself in the following strong and emphatic language: "*I believe there can be no previous condition of health which can be made to suffer by a judicious use of ether in child-birth, so much as by withholding it, unless, indeed, it be aneurism of the aorta; and even to this critical condition of the system do I carry my doubts.*"

We cordially recommend it to the notice of the profession, believing, while it is disseminating knowledge upon anæsthesia and anæsthetics, that it will also assist materially in the correction and removal of the prejudices against such agents, and, at the same time, promote the judicious and seasonable employment of them in all cases indicating or requiring their influence.

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We regret to announce the decease of Mr. R. W. McKISSICK, Dentist, of Cochranville, Pa. A more gentle, truthful, honorable man we never met with.

He was peculiarly respected and honored by all who knew him, and his loss will be deeply felt and mourned.

*The Food and the Teeth: Observations on the Inorganic Constituents of the Food of Children, as connected with the Decay of the Teeth, and the Physical Constitution of Woman in America.* By JAMES PAUL, M. D., Trenton, N. J.

The object of this interesting essay, which was originally published in the New Jersey Medical Reporter, is very well shown by its title. It is an excellent digest of the constitution of those materials employed as food in early life, and the relation they bear to the animal organism, and particularly their remote influence upon the teeth, with regard to their perfect or imperfect formation, and consequent proportionate tendency to decay, with the means of preventing such by timely and strict attention to the diet of children, thus causing a healthy developement of these organs in common with the rest of the system.

We are pleased to see the increasing attention bestowed, by the medical profession, upon these important parts of the human body, and hope that it will stimulate those, who are more immediately engaged in the treatment of these organs, to greater exertions in the study of those things so essential and indispensable to a correct appreciation and proper performance of the duties devolving upon them; and in the promotion of such a commendable intention we believe they will find this essay a valuable adjunct.

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*Discharge from the Ear and Deafness caused by the sympathetic irritation from a diseased Dens Sapiientiæ, and cured by its removal.*

We commend to the attention of our readers the following extract from Mr. Wakley's Lecture, published in the London Lancet, April, 1851.

"I remember another instance occurring in a member of Parliament, who was annoyed at intervals for *two years*, by a discharge from, and *painful swelling* of, the right ear. At last the dens sapientiæ of that side became painful, and the gum inflamed; this *tooth* was removed, and the ear was soon well. This case I consider very instructive; and the close proximity and anatomical relations of the part, justify the supposition that the diseased condition of the tooth caused the deafness and discharge from the ear."

*Staphyloraphy*.—We had an opportunity, within the past week, of examining the mouth of a patient upon whom the operation of staphyloraphy had been performed a short time previous, by Professor H. J. Bigelow, of this city. The cleft was congenital, and presenting more than the usual difficulties in such cases. Four sutures were required, and so skillfully were they applied (the parts having been very nicely brought together) that union by the first intention was the result, not even leaving so much as a notch at the tip of the uvula. It affords us much pleasure to record cases, wherein the combination of surgical skill and mechanical ingenuity are attended with such good results. Although this operation in *theory* appears very easy, it is generally attended with the greatest perplexity, as those who have had occasion to perform it can bear witness.—*Boston Med. and Surg. Journal*.

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*Merrit's Dental Messenger*.—This is a paper of sixteen pages, published quarterly by C. MERRIT, Bridgeport, Connecticut. It contains much of interest, and will be of great service in imparting to the general reader correct information on the subject of the teeth.

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#### DISEASED ANTRUM.

W. B——, aged twelve, a native of Heworth, was admitted August 16, into the Newcastle-on-Tyne Infirmary, with great enlargement of the left cheek, from enormous dilatation of the antrum. The patient had measles three years ago, since which time the present tumour has gradually increased; its distension seems, from the feeling, to be caused by fluid.

Sir John Fife made an incision from the commissure of the mouth, horizontally backwards; another commencing at the same point, directly upwards. He then dissected back the flaps as far as the orbit, first tying the facial artery; then with Hey's saw he cut out a right-angled triangle of bone, exposing the whole of the *antrum*, which contained *two teeth* and about four ounces of gelatinous amber-colored fluid, but no organic disease. The swelling has now considerably decreased, and the patient is doing well.—*London Lancet*.



*On a Case of Predisposition to Cerebral Disturbance actively manifested after the extraction of stumps of teeth. Marked benefits from alcoholic stimulation.* By J. L. LEVISON, Esq., Brighton.

Mr. —, a gentleman of respectability, and of a mixed temperament, (the lymphatic preponderating,) came to have some stumps extracted from the upper jaw. They were removed with comparative ease; he bled for a few minutes; and, having expressed himself highly gratified that he had endured such little pain, when he had anticipated the contrary, left my residence with a countenance indicative of great satisfaction. On his return home, however, he commenced feeling his mouth, because he felt the edges of the alveolar processes, which, in his terror, he mistook for stumps that had not been removed. So he procured from a watchmaker a pair of pliers, and pulled and shook the supposed offenders, until he broke off a considerable portion of the socket: on examining which, he soon discovered that, instead of the fangs of the teeth, it was simply a rough piece of bone! His alarm was great, and very soon he called on me, highly excited, and in a state of extreme agitation. He said, "What is this, Mr. Levison?" "Why, sir, it is a portion of the socket." "What, a piece of the jaw bone?" "Yes, sir, a portion of the edges of that bone which form the outer and inner surfaces of the sockets, containing the fangs of the teeth." He then took the piece from me, saying, in a voice tremulous with terror, "What is this?" (pointing to the transverse portion which formed the septum.) I gave him a brief answer, explaining to him the structure of the alveolar processes, without making anything particular of the circumstance, so as to lead him to infer anything like danger from the accident. But he told me, that whatever might be the consequence, he had, in his ignorance, done the silly act himself; and he then detailed the operation he had performed with the pliers. There was so much wildness in his manner that I tried to soothe him: assured him in a jocular tone that the penalty he would pay for being his own dentist would be, that the gums would not heal so soon—that they would remain sore and tender, arising from the continued irritation induced by the rough edges of the alveolar processes, and so forth.

He seemed pacified, but left me with a dull, anxious look. I was soon called on to see him, and when entering his room, I perceived an extraordinary metamorphosis. His whole appearance had changed. He sat in an arm-chair, looking vacant and terror-stricken. When spoken to, he did not answer, unless a moaning sound every now and then could be regarded as a reply. I asked him if anything had happened since he last saw me? had he bled much? was he in pain? He startled me for a moment with his groans and suppressed sobs. But I repeated my questions, and these roused him; but instead of answering, he asked whether in mortification there was pain? I said sometimes, and which may continue until the affected part had lost all vitality. To my astonishment, what seemed to be likely to inspire him with confidence, aggravated his symptoms. He groaned in a most distressing manner, and his features assumed an almost idiotic expression, particularly when he exclaimed, "My mouth is mortifying! My mouth is mortifying! I shall die! I shall die!" These exclamations were followed with the most piteous groans.

His pulse was low and feeble; his mouth hot; his skin moist, pale and cold, like that of a person in partial syncope. I rang the bell for the servant, and gave him some hot brandy and water, which induced a better circulation, imparted warmth to his body, and rendered his expression more natural. Still he harped on the one string, that he was sure the gums were mortifying. Finding that reasoning with him was altogether useless, I tried the effect of ridicule, declaring "that large pieces of dead gums were dropping off—that there would soon be enough for his dog's dinner." This roused him; he could not bear the bantering. He became irritated, and would have abused me, but I gave him some more grog, and as he was usually a very temperate man, it had the effect I anticipated—he became inebriated, and very sleepy. I had him put to bed. He slept very soundly, and woke up refreshed, and in his usual condition, wondering how he could have been such a fool, to have frightened himself, giving me so much trouble, and his friends so much annoyance. Some time afterwards, when he had suffered some mental excitement, occasioned by a bereavement of one of his family, he became quite demented, and continued so for a very long period, hence proving

that hereditary predisposition could be developed under circumstances that would produce no alarming disturbance of the mental functions where there existed a healthy brain.

This case is also instructive, as showing that in many instances, when there exists an hypochondriacal tendency, that stimulation (particularly where there exists temperate habits) would often save us, as in this case, the development of active cerebral disease.  
—*London Lancet*.

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*Interrupted Form of the Dentine Tube*.—"Another point to which he called the attention of the society, as illustrated in a specimen before them, was the *interrupted* form of the dentine tube, a form not shown by Mr. Tomes among the varieties he figures. The appearance is like that of a thermometer tube in which the mercury has become broken up into larger or shorter columns, or like what is often seen in the centre of a hair. The line of the tube shows an alternation of dark and light spaces, often very regular in size, the dark portions sometimes little more than mere dots, sometimes of considerable length. It can scarcely be doubted that this appearance is owing to the presence of an opaque deposit, natural or accidental, in a transparent tube, which it has imperfectly filled, in the same way that an unsuccessful injection fills an artery, and it may be considered another evidence of the tubular character of the dentine, if such were wanting."—*Extract from Dr. Holmes' remarks upon Microscopic Anatomy, before the Boston Society for Medical Improvement*.

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*The late Mr. Nasmyth*.—The unrivalled microscopic preparations made by this gentleman, illustrative of the formation of teeth, have just been added to the Hunterian Museum, by purchase, on the part of the Council of the College. Accompanying the preparations are a great number of most accurate and beautifully executed drawings by Mr. Holmes.—*London Lancet*.

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We expected to have been able to commence in this number the publication of the valuable article by Dr. James Taylor, on filling teeth, but shall be obliged to defer it to the next.

*Evil effects following from the incautious administration of Chloroform.*—Dr. Bagot stated to the Surgical Society of Ireland, December 7, 1850, that a few months previously he had been sent for, at about half-past ten P. M., to see a young lady to whom chloroform had been administered, at twelve o'clock that day, for neuralgic pains of the face arising from carious teeth. She was a healthy, dark-complexioned woman, and had, he understood, great repugnance to the inhalation of chloroform, to which she submitted but as a last resource, after having exhausted every other available means of ridding herself of those very distressing pains. From inquiries, he judged that a drachm and a half to two drachms had been administered before anæsthesia had been produced. At the period of Dr. B.'s visit, ten hours and a half after the administration of the chloroform, the symptoms under which she labored were those of coma. She was lying on her left side, perfectly unconscious of all around her, her eyelids closed; on raising the lids, the eyeballs appeared much suffused, the pupils irregular, and scarcely acted upon by light. There was considerable congestion about her face, and her head felt hot; surface of the body and legs cold; pulse 90, thready, irregular and intermittent. Up to seven o'clock her friends had not found much difficulty in arousing her, although she soon relapsed into the same state. Since that hour it had been much more difficult to dispel the stupor, and it was after many endeavors that Dr. B. was able to do so. When roused, however, she intelligently answered a question, but after some hesitation, as if endeavoring to collect her thoughts. She then almost immediately sank into the same comatose state, having first expressed herself to the effect that she knew that she was dying. Two or three times during the day she had shown hysterical symptoms, crying when moved, and having the same thought of approaching dissolution before her mind. Her bowels (habitually confined) had not been moved for three days. The apothecary, by whom this very powerful agent had been administered, visited her more than once through the day, as also in the evening, but did not take any step towards recovering the patient from the very urgent symptoms under which she was evidently fast sinking.

The general features of Dr. B.'s treatment consisted in the admission of fresh air, strong carbonate of ammonia to her nose,

an occasional sprinkle of cold water over the face, stupes of hot water, containing an abundance of mustard, to the feet and legs. As soon as she was able to swallow, draughts of ether and aromatic spirits of ammonia, were given her, and in about two hours, when the urgent symptoms were relieved, and some reaction had set in, strong tea was administered, which seemed very grateful, and by which she was much benefited. Previous to leaving her for the night, Dr. B. prescribed a draught containing one drop of croton oil, which affected her bowels in seven hours.

It is worthy of remark that, as she recovered from the effects of the chloroform, the neuralgic pains returned to her face with great violence.

At Dr. B.'s visit next morning, she informed him that she had passed a wakeful night, and had suffered much from headache, which was confined to the right temple. This pain continuing through the day, two leeches were applied to her temple, from which she derived immediate relief, and was enabled for the first time to turn off her left side. She was much reduced in strength by this illness, and fainted at her first attempt to sit up in bed, where she was obliged to remain some days.—*Dublin Medical Press, December 25, 1850.*

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*Method of hardening objects in Plaster of Paris.*—Take two parts of stearine, two parts of Venitian soap, one part of pearlash, and twenty-four to thirty parts of a solution of caustic potash. The stearine and the soap are cut into slices, mixed with the cold lye and boiled for about half an hour, being constantly stirred. Whenever the mass rises, a little cold lye is added. The pearlash, previously moistened with a little rain-water, is then added, and the whole boiled for a few minutes. The mass is then stirred until cold, when it is mixed with so much cold lye that it becomes perfectly liquid and runs off the spoon without coagulating and contracting. Before using this composition, it should be kept for several days well covered. It may be preserved for years. Before applying it to the objects, they should be well dusted, the stains scraped away, and then coated by means of a thick brush with the wash, as long as the plaster of Paris absorbs it, and left to dry. The coating is then dusted with leather or a soft brush. If the surface has not become shining, the operation must be repeated.—*Chemical Gazette.*

*Fatty Tumor inside of Cheek.*—*Operation.*—This middle-aged woman perceived this tumor four years ago. Its position, just inside of the labial commissure under the mucous membrane, is a common one for little sacs containing the glairy fluid. This looked like one, and fluctuated; but proved to be common adipose tissue, as large as a chestnut. I removed it with a simple incision. The ether was continued to this patient some time after narcotism, and until she snored; her pulse being only reduced a little in frequency. This thorough dose lasted her through the operation. With a common dose she would soon have partially waked, shut her mouth, groaned and twisted about; and after vain efforts to get along, she would probably have stopped the operation to give her more ether. As it was, she slept tranquilly through it.—*Clin. Lec. at the Mass. Med. Col., Boston, by Henry J. Bigelow, M. D.*

#### ESTABLISHING THE SCIENCE.

De Bonneville had been electrifying Detroit by his more than *galvanic* effects upon the muscles of scores of his *impressibles*, when an enormous sized Wolverine, "trying the thing" himself, found he was quite equal to the professor in setting folks to sleep and "makin' on 'em cut up" afterward; and, accordingly, in the *furor* of his discovery, off he went to the country, to lecture and diffuse the new light which had been dispensed to him. His success was tremendous; town and village said there was something in it, until his reputation, as in other cases, begat him enemies. The Wolverine mesmerizer, after astonishing a "hall" full, one evening, at some very "promising town" or other, and which bade fair, shortly, to be quite "a place," returned to the tavern, to be arrested in the bar-room by a score of "first citizens," who had then and there congregated, "jest to test the humbug," any how!

"Good evening, *Perfessor*," said one.

"Won't you take a little of the *fluid*?" said another; and this being an evident hit in the way of a joke, the "anti-humbugs" proceed to more serious business.

"*Perfessor*," said the principal speaker, a giant of a fellow, before whose proportions even the huge magnetizer looked small, "*Perfessor*," said he, biting off the end of a "plug," and turning it over in his jaws very leisurely, "a few on us here, hev jest



concluded to hev you try an experiment, appointin' ourselves a reg'lar constituted committee to report!"

The professor begged to appoint a more proper place and hour, &c., or, according to the apprehensions of "the crowd," evinced the evident desire to make "a clean back out."

"Perfessor," resumed the *big dog*, "ef we onderstand right, you call your mesmerism a *remeejil* agent, which means, I s'pose, that it cures things?"

The disciple of science referred to several cases about town, in which he had been successful, to say nothing of the "pulling teeth" operation which he had just concluded his lecture with.

"Yes," said the challenger, "you're death on teeth, we know; but ken mesmerism come the *remeejil* over the rheumatiz?"

"Inflammatory or chronic?" demanded the professor.

"Wal, siringer, we ain't much given to doctor's bottle names, but we reckon it's about the wust kind."

The mesmerizer was about to define the difference between inflammatory attacks and local affections, when he was interrupted by the inquisitor, who *rather allowed* that as far as the location of the disorder went, it had a pre-emption right to the hull critter; and that, furthermore, it was jest expected of him that he should forthwith visit the case, and bid him take up his bed and walk, or he himself would be escorted out of town, astride of a rail, with the accompanying ceremonies. This was a dilemma, either horn of which promised a loss to his reputation, but the crowd were solemnly in earnest. Already triumphing in his *detection* they began to look wolfish at him and wise at each other, so that the Wolverine had nothing left for it but to demand boldly "to see the patient." We will give the rest of the story as it was related by the disciple of Mesmer himself:

"Up stairs I went with 'em, mad as thunder, I tell you; first, at being thought a humbug, and next, that my individual share of the American eagle should be *compelled* into a measure, by thunder! I'd a gin 'em a fight if it hadn't been for the *science*, which would a suffered, any how; so I jest said to myself, let 'em bring on their rheumatiz! I felt as if I could a mesmerized a horse, and I *determined*, whatever the case might be, I'd make it squeal, by thunder!

"Here he is," said they; and we all bundled into a room, and gathered round a bed, with me shut in among them, and

the cussed big, unenlightened heathen that did the talking, drawing out an almighty bowie knife at the same time. 'That's your man,' said he. Wal, there lay a miserable looking critter, with his eyes sot and his mouth open, and his jaws got wider and wider as he saw the bowie knife, I tell ye.

" 'That's the idee,' said the old Ingin.

" 'Rise up in that bed,' said I; and I tell you what, I must a looked at him dreadful, for up he jumped, on eend, as if he'd jest got a streak of galvanic.

" 'Git out on this floor,' said I, with a wuss look, and I wish I may be shot if out he didn't come, lookin' wild, I tell ye.

" 'Now cut dirt damn you!' screamed I; and Jehu Ginral Jackson! if he didn't make a straight shirt-tail for the door, may I never make another pass. After him I went, and after me they cum, and *prehaps* there wasn't the orfullest stampeede down three par of stars that ever occurred in Michigan. Down cut old rheumatiz, through the bar-room; out I cut after him; over went the stove in the rush after both on us. I chaed him round two squares—in the snow at that—then headed him off, and chased him back to the hotel agin, where he laided n a fine sweat, begged for his life, and said *he'd give up he property!* Wal, I wish I may be shot if he wasn't a feller tat they were offering a reward for in Buffalo! I made him dess himself—cured of the rheumatiz—run it right out of him; elivered him up, pocketed the reward, and *established the science*, by thunder!"—*Scalpel*.

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*Inflammation of the Gums.*—"Inflammatory Absorption."—The patient, a middle-aged man, in whom, without assignable cause, a toothache of the first left incisor, five wees ago, was followed by pain in the upper jaw, which in a week psented a double ridge of swelled gum, almost burying the teeth and suppurating freely. The teeth, from the right canine to the ft molars, were quite loose; abscesses had formed here and there along the gums, while the face was swelled and œdematous. The treatment consisted of cathartics, free local incisions, astringenwashes, and the gum was occasionally touched with muriatic aci. The affection was greatly abated, though the teeth are still far from firm.—(*Extract from Clin. Lec. by H. J. Bigelow.*)—*Bdon Med. & Sur. Journal*.

## PREMIUM TEETH.

We now assume for our manufactures the title of Premium Teeth, believing that we have fairly and fully earned it. We have chronicled in the News Letter, as we went along, the reception of medals as received, and we have now to notice the following awards made us by the Mechanics' Institute, of Baltimore, and the Franklin Institute, of Philadelphia, at their last exhibitions. From each a SILVER MEDAL—FIRST PREMIUMS.

The Committee on Dentistry of the Franklin Institute, in their published report, speak as follows:

"This case is considered worthy of a special notice, for the following reasons:—The exceeding *vital* appearance which the teeth *maintain* when exposed to the *test* of *artificial light*, the nicely articulating surfaces of the bicuspid and molars, and the distinction between the first and second bicuspid, the first being smaller, thus gradually increasing the size from the incisors to the molars, and rendering the change less abrupt to the tongue. The *manner* in which the *platina pins* are inserted, is also adjudged to be a *decided improvement*. The committee award a FIRST PREMIUM."

What is peculiarly gratifying to us is, that the committees of both institutions consisted entirely, we were informed, of dentists, who, it is to be presumed, are the best judges of teeth.

It were needless for us to say a single word in favor of the teeth, or to give the many testimonials from private individuals in the profession, whose opinions we value highly; as the awards that have been made us by the various institutions and dental associations are deemed abundantly sufficient to prove the quality and establish the reputation of our manufactures.

We give below and on next page cuts of our principal medals.

## GOLD MEDALS.



# THE DENTAL NEWS LETTER.

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For the Dental News Letter.

## CONSIDERATIONS OF THE HUMAN VOICE IN RELATION TO DENTAL SURGERY.

[Continued from January Number.]

BY J. D. WHITE, M. D., D. D. S., DENTIST.

*The different methods adopted for setting teeth.*—It is important that something should be said, in connection with my first article on the Human Voice, in relation to the various modes in use for supplying lost teeth. When only one or more teeth are retained in the front part of the mouth, and the roots are good, it is better to supply them by pivots than to extract the roots, because they can be made to resemble the lost organs in size and shape, and preserve all the natural relations of the former teeth and gums. If it be in a case where the natural organs were well formed, and did not interfere with perfect enunciation, but in some cases, it is important to remove the roots, in order that an artificial arrangement may be made to favor better the functions of the voice than the natural organs, as, for instance, in the lateral incisors falling behind the lower teeth when the mouth is closed, or either of the front teeth; and in one instance, which came under my observation, of the canine teeth falling inside of the lower teeth, preventing the tongue from reaching the front teeth with facility, on account of the space between them being too narrow. From this defect, all words in which occurred the articulations *se, te, ne, re, le, she*, were defective. In fact, when the teeth are irregular in either jaw, so that the tongue cannot be placed in contact properly with the whole row, the voice will be unsound; or where the teeth are very long, and open at their necks, from absorption of the gums by tartar, or where there has been too much filling in cases of plugging. On this latter point, some appear to have no object in view but to have free space to operate with ease to themselves, with clumsily made instruments, not deeming the defects in speech as of any consequence. Since writing my last

article, I have received a letter from an intelligent gentleman of Mobile, inquiring what he should do for his teeth, and to whom he should apply at his place for advice, as he had been so unfortunate as to have employed an unskilful dentist in Havana, who separated his teeth so much with the file as to have altered his voice very much. In his own language, "the teeth are too far apart, one from the other. I cannot now speak as before, half of the words passing between the teeth."

*Setting teeth upon plate and wire.*—The plate is the preferable method of setting or supplying any number of teeth, as it can be fitted to the inequalities of the gum and roof of the mouth, so that air cannot pass between it and the gum in speaking, which always affects the voice. The tongue can better adapt its margins to a plate than to a wire. I am constantly supplying plates where wire has been employed, and given more satisfaction. The bands to secure the plate are the same as to secure the wire operations. There are some cases in which wire may be deemed best, but it requires a good deal of experience to determine in what cases it may be.

*Atmospheric Pressure.*—The atmospheric-pressure principle is undoubtedly the best known method of supplying artificial teeth, especially for entire upper sets, and most generally for any number, down to a single tooth, for the health of remaining teeth. Partial sets ought always to be supplied in that way, if possible, and it can be accomplished in nearly all cases if the wearer will have a little patience. It very often happens that if a spring breaks, or a band, after a set has been worn for some time, that the wearer can succeed as well, and often, in full sets, better, without the springs than they had done with them, and frequently with very narrow plates. Where there is very little atmospheric pressure, they will be enabled to retain a set of teeth in the mouth, apparently, with the lips and tongue, with great readiness, and accomplish mastication exceedingly well. That this is true, every dentist must be fully aware; and it only goes to prove that there is not that great firmness or power required for retaining teeth in their place that the patient, or even the dentist, believes on first placing a set in the mouth. If the plates were made a little wider, and without springs in whole sets, or bands in partial sets, than is usual, much more good would be accomplished, and every

dentist ought to make it a part of his duty to impress this upon the minds of his patients, and where there is a reasonable amount of intelligence there will be no trouble. Every plate, after being worn for a short time, will be more or less influenced by atmospheric pressure, and it is only partial pressure that is required ; for it is very evident that if a pressure of fifteen pounds to the square inch was constantly kept upon the gums, either by atmospheric pressure, bands or springs, it would obstruct the circulation and destroy the mucus membrane of the gums. Yet it would seem, from the remarks of some patients, that the efforts of dentists generally were to fasten the operation as firmly as bands can make them, or to obtain the full effect of atmospheric pressure. To better procure this latter effect, many curious modifications of the plain plate have been used, and some quite as ridiculous as useless, and about the respective merits of which much has been said. But I shall consider them only as far as they affect the voice. The plain plate, when it will answer, is undoubtedly the least objectionable ; because, if well fitted, it does not interfere with the natural functions of the tongue in speaking ; and, if the teeth are properly arranged on it, the voice will not be materially changed from its natural character.

“*Gilbert's Central Cavity Plate*” is perhaps preferable to any that have been devised with a cavity, chamber or chambers, that are worth using at all ; because the plate can be fitted well upon the alveolar ridge, where all plates ought to fit, and have their principal bearing in mastication, and the chamber can be placed entirely out of reach of the action of the tongue while speaking, namely, on the hard palate, where no plate ought to impinge very hard, because the floor of the nose cannot support the pressure with impunity ; and as the alveolar ridge is absorbing at all times, it will bring any plate hard down on the roof of the mouth ; it will become a kind of pivot on which the plate will be constantly rolling. Some contend that the plain plate, well fitted, is better than any with a cavity or chamber. This cannot always be true ; no matter how well a plate may be fitted to-day, the gum in a short time undergoes sufficient change as to only partially fit the plate ; and if the plate fits well all over, it will become useless in a shorter time than when it is not driven down to the cast over the roof of the mouth. And what is strange,



so the dentists who condemn the central cavity, say themselves, that they do not swedge the plate close to the roof of the mouth. It is to be sure a plain plate, but has a *shallow chamber*, and no plate requires more; no matter how shallow the central cavity is, it is sufficient, because it favors the better impingement of the margins of the plate upon the gums, than without any, which is indispensable to obtain a due amount of pressure, and prevents, in a measure, the rolling of the plate on the gums during mastication; an effect which is inevitable on account of the elasticity of that substance; any plate will rock more or less when pressure is made on one side only at a time. It is an error, that the deeper the cavity the more firm will be the atmospheric pressure. If the chamber is as deep as the thickness of a piece of card paper, and the air is exhausted from it, the pressure will be as great as if the cavity were an inch in depth. It is the surface, not the height, that gains power. And if it were not that the column of air in this chamber is a better lever upon which to exert the power of suction, and a reservoir into which air can accumulate for a long time before all pressure is lost, and at the same time better prevents the plate from impinging on so much of the hard palate, the plain plate would be as good as it in all probability. Again, in bringing the jaws firmly together, the gum is forced into this chamber to some extent, and in so doing displaces the air and obtains an air-tight joint around its margin, similar to forcing a cork into a bottle, and secures complete atmospheric pressure equal to this surface; then, upon withdrawing the pressure of the jaws, the elasticity of the gums upon which the plate impinges, raises the plate away from the gum opposite the chamber, and increases the atmospheric pressure, and this action kept up constantly, and on all sides alike, the pressure is maintained without the act of suction on the part of the patient. Hence, I frequently instruct my patients to chew slowly, and on either side at the same time, until they are trained to their deliberate use. It is not my experience that the central cavity interferes with the tongue in speaking, because it (the tongue) impinges only upon the margins of the gum and the necks of the teeth, unless it be made a quarter of an inch deep, and placed far enough forward to be struck by the vibration of the tongue in the articulations, *se, te, ne, re, le*.

(To be continued.)



For the Dental News Letter.

## DENTISTRY, ITS RELATION TO AND POSITION IN MEDICINE.

MESSRS. EDITORS :

We are sorry to see, by the subjoined resolutions, introduced into the American Medical Association, at its recent annual meeting, in the city of Charleston, S. C., that there is a desire to exclude the representatives from Dental Colleges, and of course inclusive, the cultivators of Dental Science, from membership and participation in the praiseworthy objects of this noble association, thereby intimating and proclaiming that dentistry is not a branch of medical science, and the practitioners of such not members of the medical profession. Now, it is almost, if not universally, acknowledged that dentistry is a branch of surgery, which latter is undeniably a very important part of medicine, and hence it must be considered as useful and essential a department of medical science as those which have for their object the preservation of the other organs of the body, such as the eye, ear, lungs, &c. These specialities do not, and cannot, with the exception of the latter, hold a more exalted rank or position than that of the teeth, the preservation of which organs are just as necessary, if not more so, to life and health than many of those, the investigation and purpose of which are acknowledged and included as legitimate branches of medicine. Hence we cannot see the object or benefit which will be derived from such false or artificial distinctions, but readily the great evils flowing from the calumny and disgrace thus attempted to be cast upon this particular department of medicine, because it will tend to degrade it to the level which it, in common with the other important branches, as of the eye, ear, &c., formerly occupied, and thus prevent men of intelligence, properly educated, from pursuing or cultivating it, which is being done to such an extraordinary extent at the present time, as is shown by its rapid and unprecedented advancement and improvement, which, we will venture to assert, is superior to and greater than that of its sister branches, and particularly those of oculistry and auristry, or more properly, optistry and otistry ; for these departments have not, as yet, been able to correct and supply, comparatively, to as great an extent, the deficiencies of nature, even so far as the physical adaptations of means to ends will warrant, and is capable of being done. There-

fore, the practitioners of, and dentistry itself, should rather be commended and exalted than contemned and degraded; for certainly, according to the usual mode of judging by comparison, the science and art of dentistry bears off the palm, in the rapidity of the improvement of the former, and the successful and beneficial results of its application to the latter, as thousands and tens of thousands can personally testify, from a daily practical experience; and consequently the practitioners engaged in the application of the principles of science to such an art, should assume and be placed in a more elevated position than those interested in the other departments, which are inferior to it in these and many other respects; though not wishing, in the least, to infer that these latter are not worthy of the high position which they now deservedly occupy, but rather from a desire to place the former also in its true position. Therefore, as a practitioner of the *art*, as dependent upon, and derived and deduced from, and in accordance with the *science* of dentistry, I protest against this tyrannical assumption of power, as an unjust and pernicious crusade against a highly important and necessary department of science, by those who have heretofore more especially represented the healing art, in thus stigmatizing and declaring that the art of dentistry is not a branch of that art, and the practitioners of such, many of whom are graduates of our best medical schools, are not entitled to, and are not worthy of, the favorable notice and association of, and equality with, their colleagues in the other branches and departments of the *ars medicina*, and are not engaged in the same noble cause of preventing, correcting and ameliorating the ills and afflictions incidental to this material organization and probationary and temporal existence.

No man, or set of men, have the right, though they may possess the power, to stigmatize or degrade any branch of the particular department of life in which they may be engaged, because, forsooth, they cannot appreciate its importance, and hence have entirely neglected its cultivation, and thus thrown or forced it into the hands of charlatans or ignorant men; and then when some of their own number or professional brethren, with the same professional education, and it may also be added, attainments and abilities, as themselves, desire and attempt to remove it from that degraded position, and thus rescue it from the hands of those who

cannot appreciate or practice it properly, and endeavor to elevate it to that height and position to which it is justly entitled, they will persist in doing injustice to it, and in contemning those of more enlarged views who are thus engaged. This attempt to traduce, for it can only be but a mere attempt, will undoubtedly fail, the disgrace of which will unquestionably return upon those concerned in such an unworthy effort, it being an unalterable law that right and truth will always, from their greatness, conquer and rise superior to those extraneous influences which may, for a time, retard their progress and elevation to their ultimate position or destination.

The condition or state of the science (for it now justly claims this title) and art of dentistry at the present time, will compare favorably with all or any of its sister sciences and arts, not only in the successful results of the application of the principles of the former to the practice of the latter, but also in the high character its literature and colleges have attained, being superior in this latter respect; for some of the other branches have not heretofore, in this country at least, been sufficiently valued to cause their distinct separation, and the organization of special institutions for their instruction and acquirement, whilst the former can point with pride to the number already existing, and others constantly rising and rapidly increasing, showing the high importance attached to the proper appreciation of the science and the practical application of its principles; and although hospitals, as in some of the others, have not as yet been instituted for its promotion, by treating the diseases and correcting the deformities incidental to the teeth or their deficiency, and the mouth and other parts, and also of the whole body, arising from them, yet there is no good reason why such cannot or should not be established, the necessity for them being as apparent as it is for the others; for it is well known that a large number, and even much greater than is suspected, of local and general derangements of the economy may be traced to, and are dependent upon, the primary disturbance, disease or deficiency of the parts comprising and forming this corporeal vestibule, in which the initiatory steps for the reduction and preparation of those materials which are essential to the support and construction of, by means of assimilation with, the animal organism, and upon which its development, existence and preservation is absolutely dependent.

As this resolution, however, is placed in the hands of a committee, and according to the usual course, therefore lies over to the next annual session, it is to be hoped that the time thus allotted for its consideration, will be used for further and more correct reflection upon, and in this way induce the members of that committee, and of the general association, and also of the profession, to take a more enlarged and liberal view of the subject, than the language of the resolution indicates has heretofore been done, and consequently cause them to discard it as highly injurious to the progress of the science of medicine generally, and as grossly unjust to this branch, and the practitioners of it especially.

Dr. Wood, of Pennsylvania, offered the following resolution :

*Resolved*, That Colleges, exclusively of Dentistry and Pharmacy, are not recognized by the Association, as among the bodies authorized to send delegates to its meetings.

Dr. Wood, of New York, moved to amend, by dividing the resolution, so as to take the question, first, on the reception of the delegates from Colleges of Dentistry ; secondly, on the reception of delegates from Colleges of Pharmacy.

The amendment having been accepted, the question of the reception of delegates from the Colleges of Dentistry was debated.

Dr. Lamb moved an indefinite postponement of the resolution, which was lost.

A motion was finally made by Dr. Hays, of Pennsylvania, that the whole resolution of Dr. Wood, including Colleges of Dentistry and Pharmacy, be referred to a special committee of five members, which resolution was adopted.

The following gentlemen were appointed a committee under a resolution in regard to Schools of Pharmacy and Dental Surgery, viz : Drs. Hays, Stevens, Yardly, Storer and Jones.

To neutralize or modify somewhat, however, the force of this intended infringement or indignity, it will be seen by the following resolution adopted and recommended by the Philadelphia Medical Society, and supported and approved in its adoption by the Pennsylvania State Medical Society, that all Medical Colleges are recommended to be henceforth excluded from direct representation in the National Association, which is desired to be confined to representatives or members of the state and county societies, thus making its action and rendering its influence more systematic and direct, and more especially the result of the united efforts of the profession generally, exclusively of the teachers in

colleges, and delegates from other medical institutions and associations, who may be, and are, however, represented either personally, or by their colleagues through the appointments of the subordinate county and state societies.

Dr. Samuel Jackson, late of Northumberland, offered the following resolution, which was adopted after an interesting discussion :

*Resolved*, That this society approves the recommendation of the Philadelphia County Medical Society in favor of a change in the mode of representation of the National Medical Association, making such representation to consist exclusively of delegates from State and County Medical Societies.\*

This, if successfully carried out, will be perfectly just, as all Medical Institutions and Associations will then be on an equality, and the members of the dental profession must then, as they should do so now, seek and secure their rights by claiming their eligibility to, and obtaining their membership in these local societies, and through them to, and in the National Association.

This will be no more than their just due, for they, in common, with the other members of the general profession of medicine, having received the same medical education, and being engaged in teaching the same great and general principles of science and practicing, by applying them for the welfare and happiness of their fellow men, necessarily have an equal right to all the privileges and benefits appertaining to such an honorable occupation.

In conclusion, I hope that these few general remarks upon this subject may induce a more enlightened view and policy with regard to the different branches, and this special one particularly; and the relation they bear to the trunk of the great tree of medical science, and thus induce and cause those who are properly qualified to assume and receive, as they are justly entitled to, the distinctions and honors which are appropriated by and conferred upon their more fortunate brethren.

With the desire that these views may receive the favorable consideration and support of the profession, I remain respectfully  
yours,

MEDICUS.

Philadelphia, June 28, 1851.

\* We have since been informed that this resolution was also presented to the National Association, and referred to the same committee as the preceding; the announcement of which was, however, inadvertently omitted in the published report of the proceedings.

For the Dental News Letter.

## PRACTICE IN THE SOUTH-WEST.

MESSRS. JONES, WHITE &amp; McCURDY:

*Gentlemen*:—As promised on some former occasion, I will now endeavor to jot you down a few facts, figures and fancies, which are at your disposal, to instruct, amuse or interest your readers, as the case may be. I shall not attempt a labored essay, nor will I weary your patience, or bore your readers, with a learned disquisition on the possibility of a man's having more than three sets of teeth. On the contrary, I shall endeavor, in my imperfect and desultory style, to give you an "inkling" of life in the South-west. My more favored brethren, I hope, will not accuse me of "Foote-ing"\* it, if I tell them of difficulties to be contended with here that they "wot not of."

Our prices, 'tis true, are somewhat higher than in the older and more populous States; yet it is a well-known fact, that even wealth must have time for refinement. We have here a wealthy country—rich in every thing that can constitute a people truly great; but though we live *fast*, and are possessed of more go-aheadativeness than any people on earth, yet we, even we, must have time, time to prepare to live. It is not unfrequent to hear an individual exclaim, "My teeth are ruining! but really I have not *time* to have them operated on," and, in many instances, they really believe that they *have not time*; acting upon the principle that life is a race, and that every man is pitted against his fellow—that if he tarry by the way-side, his neighbor will get the start in the great scramble for the "almighty dollar." With this for his motto, he solaces himself with the reflection that there are other mills than *his* "*grub-mill*," and if his teeth do leave him, he can "mumble" it. So long as his locomotive power is good, with "Devil take the hindmost" for a starting point, he "pitches out," and cares not a cent for the future. There is a spirit of reckless adventure inherent in the people of Mississippi, that is evidenced by their every-day life, which I have never seen so prominently elsewhere.

Messrs. Editors, have you ever seen a Mississippi road in the winter season? If you have not, and were to get a glance at them when in "*mud*," it would puzzle you sorely to solve the problem of how we "*forded them*." I think if it be that the

\* Drawing a long bore.



"mickle black deil" beguileth the heart of man to lay "traps" wherein his own erring steps might fall, that he must have been chief engineer in the construction of our *railroads* and bridges, called, "par excellence," "winter roads." The bridge, particularly, is a curious specimen of—I cannot say civil engineering, for there is great strategy evinced in its construction. The unfortunate man who must dare their dangers, commits himself, with an invocation to Him who guideth the wayfarer in safety—to their uncertainties, and is, perhaps, landed in safety over, or—God forgive his sins—precipitated, with no regard for his "neck,"—horse, buggy and all, into the turbid waters or slimy sediment of some dirty creek. I speak knowingly, and *it* "full well I know," *having* more than once personally proved that a man *might* fall through, or with a bridge, and *not* break his neck. But, as there is no evil, however great, without its attendant good, our summer roads are always passable, even decidedly good.

As is common in new countries, quackery and charlatanism have been the pioneers of science and intelligence; but I do think this State has been particularly cursed in that respect. It was my fortune, a short time since, to obtain one of the most ingenious specimens of self-confident ignorance to be found in the whole catalogue of dental curiosities. It was "tooth-carpentering," with a vengeance. It was the four superior incisors, mounted upon a plate made of the shell of the tortoise, or common land *terrapin*. The teeth were made of the same material, the "*artiste*" selecting the lightest shade, with the *flesh side* out. The teeth were fastened on with brass rivets through them, perpendicularly. It was originally confined in the mouth by a strong, hard-twisted hempen cord, passing round—with something like a surgeon's knot—the right and left superior bicuspides. It was done some years since by an itinerant "disciple," who no doubt considered it his "*chef de œuvre*."

I should like to hear, through the medium of the Letter, from some of your correspondents, on the subject of chloroform, their manner of administering it, its effects, &c., together with their experience on the subject generally. I have been using it to some extent, and with great advantage.

Yours, &c.,

Q. C. GRASTY.

Houston, Miss., April 14th, 1851.

For the Dental News Letter.

## ARTIFICIAL MARBLE.

We commend the following to the profession, as it will afford a means of preparing and preserving, more effectually, cases of malformed, deformed, and other irregular and curious cases, (while at the same time it is applicable to a great variety of other useful and ornamental purposes,) and thus excite a greater desire for, and promote more successfully the formation and preservation of a cabinet of such specimens, which every professional man should endeavor to secure, thereby, in time, collecting and adding records of a great number of cases, and a large amount of matter which may, probably, subsequently become essentially valuable for the improvement and advancement of science:

*Specification of the Patent granted to Selim Richard St. Clair Massiah, of Alderman's Walk, New Broad street, in the city of London, for Improvements in the Manufacture of Artificial Marble and Stone, and in treating Marble and Stone.*  
Sealed August 10, 1850.

To all whom these presents shall come, &c., &c.:

Firstly. Cut or shape the gypsum or sulphate of lime, or alabaster, to the required form, and place it in the drying room, at the temperature of from eighty to one hundred degrees of Fahrenheit.

Secondly. When thoroughly dried, immerse it in a warm solution of borax and sal-enixum, (super sulphate of potash,) in the proportions of about one pound borax and a quarter of an ounce sal-enixum to the gallon of water; take it out, and again place it in the drying-room.

Thirdly. When dry expose it to a heat of from 250 degrees of Fahrenheit or upwards, until the watery parts are entirely driven off; take it out of the oven or stove, and to prevent decrepitation, let it cool till the hand can be borne on it for a few seconds; then immerse it for the second time in a hot saturated solution of borax, to which add from a quarter to 1 oz. of concentrated nitric acid to each gallon. Attention must be paid to the quality of the nitric acid, by obtaining the best and most concentrated, as much of the hardness and bleaching quality depends on it. Leave it to simmer, or nearly so, until the stone is thoroughly

saturated. Take it out, and leave it to dry, when it will be found to have acquired a marble-like hardness.

Fourthly. A day or two after, heat it gently, and apply to it Canada balsam, diluted in turpentine or naphtha; it may be kept warm till the spirit is driven off; or it may be taken away and suffered to be driven off by the air.

Simple colored marbles are obtained by proceeding as already mentioned; but substituting for the solution of borax and nitric acid, a solution of borax accompanied by a dye and nitric or other acid, or a nitrate, ex. gr.,—for blue, a solution of borax with prepared indigo and nitrate of iron.

Compound colored marbles are obtained by a double process; ex. gr., the first process as for blue given above, when it must be suffered to dry. Then expose the stone now dyed blue to the second process of heat; suffer it to cool, as already said, to prevent decrepitation; and immerse it in a solution of borax, to which add safflower or any red dye, with nitric acid, when the blue and red separate into ranks, forming apparently natural streaks or veins, partaking of purple tints in some places, and in others preserving the red and blue veins apart and unblended. This process may be repeated with other dyes, so as to obtain three or more colors.

I do not confine myself to the use of borax and sal-enixum, as alum or other earths may be used. But I claim the employment of nitric acid in the white and naturally veined marbles, and the mode of obtaining the compound colors, which may be tripled and quadrupled by multiplying the process. Old, inferior, or decrepitating marbles, I submit to the same process, and effectually strengthen or dye them.

I also claim the process when applied to these purposes, &c.

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For the Dental News Letter.

#### REPLACEMENT OF A NATURAL TOOTH.

Messrs. JONES, WHITE & McCURDY :

*Gentlemen:*—The latter part of April I performed rather a novel operation, and thinking that others might have cases similar coming under their notice, where they could perform the same operation with success, and very much to the gratification of the patient, I thought I would report it for your very useful Dental News Letter.

My oldest daughter, about sixteen years of age, being at home during the vacation in her school, one day drew my attention to the first bicuspid in the left side of the superior maxilla. She complained of great pain in the tooth, and especially, when she attempted to bite with it. Upon examination, I found the gums somewhat swollen, and a cavity in the posterior side; but the pulp not being exposed, I was very loth to have so prominent a tooth extracted, and hoping to reduce the inflammation and fill the tooth, I ordered applications for that purpose, but did not succeed; and after she had suffered a day or two of intense pain, I consented to extract it. Having seated her in the chair, I took it out with perfect success; the blood flowed very profusely; and while she was attending to that, I examined the tooth, and found a large, but very well shaped cavity. Having in a number of cases extracted teeth to destroy the nerve, and replaced them with success, the idea struck me that I could fill this and replace it. I immediately cleaned it out and filled it, and was about to return it, when I discovered a small cavity in the anterior part of the second bicuspid; I laid it down and cleaned and filled that also; after which I returned it to its place, gradually pressing it up. She suffered very much from the soreness for several days; but it at last became perfectly tight; and when she left home to return to the school, it was apparently as firm as ever, and I have no doubt will retain it many years if she should live.

Hoping that many may hereafter be saved from the loss of prominent teeth by myself and others in the same way,

I remain yours, &c.,

B. J. LIPMAN.

Brooklyn, May 27, 1851.

#### REMARKS ON THE ABOVE.

The treatment in this case appears to have been very successful, and more astonishingly so, on account of the length of time the tooth was separated from its natural condition and position, and consequently well exemplifies the wonderful recuperative powers of the animal economy.\* The practice, however, is not new, but one which has been in vogue for a long time, having been adopted as a substitute, and to avoid the necessity for the final extraction; and also as a modification of, and to prevent

\* A similar, but rather more important case was published in the second number of the present volume.

the resort to the old plan of transplantation of the teeth, recommended and practiced by the older writers and practitioners; but which has been generally discarded by the more recent ones; having fallen into disrepute from the evil effects often directly arising from its practice, and also, in consequence of the superior advantages otherwise derivable from the present improved modes of treatment; yet, as there may be, and are *occasional* cases in which it might be admissible as a *dernier* resort, the attention of our readers is invited to it, and any facts tending to elucidate the subject, will no doubt be interesting to the profession generally; therefore, those who may be in possession of such, will not only promote the welfare of the afflicted, but also the interests of science, by furnishing them for publication, thereby affording means for estimating more definitely its merits; thus placing the practice on a true basis, and showing to what extent, in what conditions, and under what circumstances it may be made useful.

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#### ON THE USE OF THE BLOW-PIPE.

The soldering lamp may be fed with oil, tallow, or hog's lard. The flame of a spirit-lamp gives a strong heat free from smoke; the only objection to it, being the increased expense attending the employment of alcohol as a combustible. The wick of the lamp should be parted in the middle, in order to expose as great a surface as possible to the flame.

The great art in the use of the blow-pipe consists in maintaining a continuous, equable stream of air so long as the operation of soldering requires it. To effect this, the blast must not proceed directly from the lungs, but the cheeks must be inflated, and by their compression the air must be forced through the blow-pipe, respiration being maintained in the meantime by breathing through the nostrils. This, though rather difficult at first, will become easy after a little practice.

The beginner should first learn to breathe through the nostrils, keeping the mouth shut. Let him then learn to distend the cheeks with the air thus inspired, and to make several respirations, without suffering any air to escape from his mouth. When able to accomplish this, let him take a blow-pipe between his lips, and having filled his mouth with air, let him expel it gently

through the tube by the action of the muscles of the cheeks, while he breathes through the nostrils. To this end the tongue must be applied to the palate, so as to interrupt the communication between the mouth and the passage from the nostrils. As the supply of air in the mouth diminishes, it is to be renewed by withdrawing the tongue from the palate, and again replacing it, as in pronouncing the word *tut*.

It will be advisable to practice the keeping up of a stream of air in this manner with the blow-pipe alone, without applying it to a flame; and having become tolerably expert, the learner may then proceed to keep up without attempting to direct it on any object; and when he can do this with facility, he may proceed to fuse small lumps of lead or zinc, placed on charcoal previously scooped out so as to form a small cup suitable to contain the metal in fusion.

A ragged, irregular flame shows that the orifice of the blow-pipe is not round and smooth, and a cavity in the flame shows that the orifice is too large.

Having thus become able to manage his blast so as to have a perfect control over it, the student may proceed to solder his artificial denture.

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*Anomalous Disease of the Superior Maxilla.*—Mr. Avery discharged a few days ago from the clinical ward, a woman sixty-four years of age, who had applied for a diseased condition of the superior maxilla on the right side. The symptoms were only of nine months' standing, and consisted of severe pain in the jaw, an enlargement of the bone towards the face and into the mouth, with a very offensive purulent discharge from the nostril. The right half of the hard palate was projecting downwards, and yielded to the finger a fluctuating sensation. Mr. Avery introduced a fine trochar into the swelling, in order to ascertain whether it contained fluid, when the canula yielded some blood. Under these circumstances, Mr. Avery thought that it would not be prudent to propose any further surgical interference, and sent the patient to her friends. We are anxious to mention this case, as we consider that it is requisite, in the history of modern surgery, that not only operations should be recorded, but likewise those instances where the removal of an important bone might be attempted, and the surgeon has abstained.—*London Lancet, May.*



For the Dental News Letter.

## TREATMENT OF TUMOURS AND ABSCESES.

BY GEO. J. ZIEGLER, M. D.

MESSRS. EDITORS:—A short time before the reception of the last number of your Journal, in examining the mouth of a gentleman, I observed a small tumour in the inside of the cheek, below, and a little posterior to the left angle of the mouth, somewhat similar to, although not so large as the one described in your extract from the Boston Journal. I directed the attention of the gentleman to it, and obtained his permission to treat it, which I did by merely puncturing it with a lancet, and extending the incision through it from one side to the other, thus exposing its interior, then cauterizing the whole of the internal surface of the lining membrane with nitrate of silver; and in consequence it collapsed, and healed very readily in a few days by the first intention. This is a very simple and generally a very efficacious mode, without resorting to the complete excision, and superseding the necessity for general anæsthesia for the purpose of treating these tumours, which are usually, as was this one, filled with a glairy fluid, somewhat resembling the vitreous humour of the eye, and of such a consistence as to remain stationary, except the protrusion, after even complete separation of its external supporting and lining tissues, it seeming to be deposited and retained in cells, and surrounded by a membrane analogous to the hyaloid membrane. The treatment is in accordance with established and known principles in surgery, being similar to that required in various other analogous conditions, such as hydrocele, &c., in which, however, it is necessary to introduce the remedial agents by injection, to excite increased action or inflammation, for the more perfect agglutination of the tissues, and the radical cure of the disease, though most generally the injection in this latter case consists principally of other substances, such as tinct. of iodine, port wine, &c.

This principle might be made of more general application in the treatment of analogous tumours, in other parts of the body, with or without the evacuation of their contents, according to circumstances; and also deeply seated abscesses, indisposed to

heal, which are frequently connected with the surface by a fistulous opening, and if not, the contents could be first, generally, readily evacuated by incision, followed by the injection of solution of nitrate of silver, tinct. of iodine, &c., which would no doubt promote the tendency to healthy granulation, by exciting inflammation or exalted action, and consequent adhesion. But what I desire more particularly to draw attention to, in the application of this principle to dentistry, is the treatment of alveolar abscess, especially important where it is connected with a tooth or teeth, the preservation of which is so often of the greatest moment. It is well known that the treatment of this affection heretofore has been very unsuccessful, so much so, indeed, that almost all writers consider it entirely nugatory, and that the only alternative is the sacrifice of the tooth so implicated. I have been in the habit of using the tent in these cases, but, I must confess, with very little benefit; yet this may have been from the stage of the disease, or from not persisting in its use steadily for a sufficient length of time; and also on account of the difficulty of inducing patients to keep it in, or have it renewed when accidentally withdrawn.

The present course, however, promises something better, and, therefore, it is presented for consideration, and thus we may, in a much shorter time, through the experiments of a large number of persons, obtain a mass of testimony, sufficient to prove its utility or worthlessness. For the satisfaction of those who may be disposed to consider it of doubtful efficacy, I will state, that this principle has been recently successfully applied by M. Boinet to the treatment of extensive abscesses around the joints and bodies of the bones in which they were also involved, and with speedily beneficial and curative effects. In alveolar abscess this treatment should be instituted, as in the cases reported by him, as early as possible, and more particularly in the congestive and suppurative stage, and better before the bone is denuded, as the earlier it is resorted to the greater the prospect of success, by opening the sac as soon as it is formed, or even puncturing before it is complete, and injecting a solution of nitrate of silver, sulphate of copper, tinct. of iodine (the one employed and preferred by M. Boinet), or any other appropriate remedy, then the insertion of a tent, to cause it to fill up from the base of the

cavity with granulations, otherwise it will generally close at the fistulous orifice, and thus retard, or even prevent, the cure.

The incision should be sufficiently deep and extensive to expose the periodontum, sac, base of the fang, and the surrounding diseased bone, directly to the influence of the remedial agent, so as to excite more immediately healthy action in the parts implicated. Of course in numerous instances, and particularly in the earlier stages, in the inferior maxillary principally, an almost insuperable obstacle to the proper institution of this treatment would be the thickness of the intervening bone; but in a large number of cases it will be found that this has been previously removed by absorption or disease, and in those in which it has not, it may to a certain extent, where circumstances warrant such a course, be obviated by the removal or puncturing of the external and investing layer, which could, on account of its thinness, be generally readily effected in the superior maxillary especially, in which, from its greater vascularity, this disease most frequently appears.

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#### TREATMENT OF CERTAIN CASES OF HARE-LIP.

[E. A. Lloyd, Esq., in a clinical lecture on surgery, lately delivered at St. Bartholomew's Hospital, related the two following cases of complicated hare-lip, which were highly interesting from the successful application of a new mode of overcoming the difficulties met with in some complicated cases.]

CASE I.—*Hare-lip, with a large portion of the superior maxillary bone projecting through the fissure, cured by operation.*—The child, Eliza Fisher, was admitted in Sept. 1849, during the time I was absent from town, and when Mr. Paget was attending to my patients in the hospital. On my return she was handed over to me in a most emaciated state, perfectly pallid, and with patches of eczema impetiginodes on different parts of the face and body, with diarrhœa, very little appetite, and altogether in such a miserable state that no one would have been justified in performing any surgical operation at that time.

A large portion of the superior maxillary bone was projecting through the cleft of the lip; not perpendicularly in the natural position of the bone, but turned upwards and forwards, and projecting horizontally, in a direction nearly at right angles with the

normal position of the teeth. The fissure extended through both hard and soft palate. The state of the child's health was at that time so bad that it was little expected there would ever be an opportunity of performing an operation. But, in a short time, by the employment of appropriate medicines, the diarrhœa was checked, the condition of the stomach improved, the appetite increased, and the cutaneous disease subsided. The cod-liver oil was freely administered, and, in a few weeks, the health of the child was so far improved, and it gained so much flesh and strength, that it was considered means might be commenced to obviate the deformity without any risk. Before uniting the fissure in the lip, it was necessary to get rid of or change the position of the projecting piece of the superior maxillary bone. The practice in this hospital has hitherto been to cut off the projecting part; but this plan leaves a gap in front of the bone which is never filled up, and which remains a deformity for the whole of a patient's life, and interferes materially with the power of articulation.

In order to obviate this inconvenience, it was attempted to push the portion of bone back into its proper place, by keeping continual pressure on it by means of a pad. This plan was tried for several weeks, but it failed entirely. I then determined to forcibly break down the piece of bone with a strong pair of forceps, to bend it into the gap, and leave it to become fixed there. This was easily accomplished, the soft parts having been previously divided. A small compress of lint was placed over the part so as to confine the bone in its new position, and kept in its situation by means of adhesive plaster.

No bad symptom whatever followed this operation, and the piece of bone was easily retained in its new place, and in about a fortnight it became firmly fixed there. By this means the gap in the superior maxillary bone was entirely filled up. The ordinary operation for hare-lip was now performed; viz., the edges of the fissure in the lip were pared, and the two even surfaces were brought together in the usual way with hare-lip pins.

There was some considerable difficulty, however, in doing this, for the nose was twisted; also one side of the fissure in the lip was much longer than the other: so that in order to adjust the edges properly, it was necessary to pare the edge of the shorter

side of the fissure in such a manner as to make the raw surface of a convex form; thus leaving a surface on the shorter side of sufficient length to unite to the whole of the longer edge of the fissure.

The uppermost hare-lip pin was discharged by ulceration on the third day, which resulted from the great force required to bring the parts into contact at the time of the operation; and in consequence of this a small aperture was left.

The other pin was allowed to remain two or three days longer; and when it was removed, the two raw surfaces were found to have firmly united below, but the aperture left by the ulcerating out of the upper pin still remained. The edges of this aperture having healed, it became necessary to detach the cuticle from them, and then bring them into contact as in the first operation.

I have always found that strong liquor potassæ is the best caustic to apply in these cases, for the purpose of detaching the cuticle; and in this case it was applied. The two raw surfaces were kept in contact by means of a long strap of adhesive plaster passed all around the head and above the ears, the two ends being crossed over the wound in front.

It is necessary to pass the plaster all round the head, otherwise it will frequently slip, and thus fail in keeping the two sides of the cleft in continual contact with each other.

I have never known this plan of treatment fail in any case. In a few days the aperture was perfectly closed, and the child left the hospital, not only cured of its unsightly deformity, but likewise in the enjoyment of a good state of health.

Ol. jecoris aselli was continued with marked benefit during the whole of the time.

The next case I will relate to you was certainly the most unsightly instance of this deformity I ever met with, and one in which the plan of breaking down the projecting piece of bone, instead of cutting it off, was perfectly successful; and a most satisfactory cure was the result.

*CASE II.—Double Hare-lip, with the central portion of the superior maxillary bone so elevated as to make a right angle with the rest of the jaw, cured by operation without cutting off the bone.*—In this case, which came under my care at the hospital a few months ago, a portion of the superior maxillary bone,

about half an inch in breadth, with a portion of the lip attached to it, was projecting upwards and forwards, at right angles from the natural position of the bone, carrying with it the septum nasi, and thus elevating the nose in an extraordinary way, the alæ nasi being at the same time widely spread out.

This elevation of so large a portion of the front of the face caused a deformity so hideous that the "human face divine" was scarcely recognizable. So dreadful, indeed, was this deformity, that to remedy it by any operation was almost despaired of.

But I determined to make the attempt, even in this case, feeling assured that all cases of hare-lip, however bad they may be, can always be considerably relieved by operation.

I therefore strongly advise you to operate in all cases that may be placed under your care.

This child was also in a most emaciated state; it was brought up entirely by hand; the nature of the deformity rendering it impossible for the child to take any of its food in the natural way.

As the means most likely to afford support and strength to the infant, cod-liver oil was given at first, in doses of one drachm, three times a day: but it was, after a week, increased to two drachms. This having been continued for three weeks the child's health was so much improved, that I determined to break down the projecting piece of bone.

I should tell you that, during the whole of this time, Mr. Ayre, one of my dressers, on whose diligence and attention I can most implicitly rely, had attempted, by slight pressure continually applied, to press down the projecting piece of bone; but this was of no more use than in the case I have just related to you. I first dissected up the central portion of lip from the projecting piece of the bone, and then with a strong pair of forceps broke the bone, and forced it down into the gap. After this was accomplished, a pledget of lint was placed on the broken piece and confined there by means of sticking-plaster carried round the head and face, so as to prevent the bone from again projecting, having previously raised up the piece of lip which I had detached.

The bone having, in a few weeks' time, become firm in this position, I operated on one side of the lip in the usual way, and



brought the edges together by one common suture and one hare-lip pin. There was not room for two pins.

This operation was quite successful, and in about three weeks I determined to operate on the other side. Here a difficulty presented itself, the edge of the fissure on one side being much longer than that of the other, the shorter side being that of the central portion of the lip. The pareing, therefore, of this edge was carried to a certain distance round the lower extremity. By this means the two raw edges were made of the same length, and brought accurately into apposition.

The edges of the cleft readily united, and the patient is now quite recovered, and instead of being a hideous object, is now a really good-looking child. The nose, too, which was flattened at first, is at present much more prominent.

The child will be brought to the consulting room to-morrow, when you may have an opportunity of judging for yourselves of the success of the operation.

I never saw so much projection of the bone as in this case.

In cases of very young children, I recommend you always to try pressure for some time when the bone is projecting. It may not unfrequently be reduced by that means, and, in proof of this, I could, if it were necessary, adduce many cases.

On no account cut off the projecting piece, for, although the highest authorities have recommended that practice, I feel convinced that it is quite unnecessary, and that by so doing you will render the articulation of the patient imperfect for his whole lifetime; and, in many instances, much deformity will result, from the falling in of the lip, there being no support for it.

Although, indeed, by the removal of the part, you accomplish your object in one operation, that slight advantage should not be considered when the patient's comfort for life is at stake.

We frequently see persons who have been operated on for hare-lip, with a small V-shaped cleft remaining at the bottom, when the pared edges have not united. This, I imagine, arises from the parts retracting below the lower needle, and not being kept in contact long enough to enable them to unite. I therefore advise you, in order to obviate this, in all simple cases of hare-lip to make both the raw surfaces of a concave shape; and by this means you will leave a sufficient quantity below the

lower needle to allow for a certain degree of retraction, without a gap in the margin being left. This mode of proceeding I have followed in the hospital for many years.

There is another plan which I have also sometimes adopted to prevent a notch remaining in the lower margin of the lip. I leave portions of what I slice from the edges of the fissure attached to the inferior angles of the fissure; turn them down with these raw surfaces opposed to each other, and confine them in that situation. By this proceeding, instead of a notch being left, the central portion of the margin of the lip may be made to project. It is many years since I first had recourse to this proceeding.

Sometimes the edges of the fissure are so far apart that it requires great force to bring them together, and in these cases they will not readily unite. It is therefore necessary to separate the parts very freely, and far back on either side; and I have met with cases in which the deficiency of lip has been so great that there was no possibility of keeping the edges of the fissure sufficiently in contact without making a perpendicular incision on each side of the lip, commencing at the outer side of each of the alæ nasi. By this means you will always be enabled to bring the edges so easily together that they will readily unite. The incision should not be carried through the membrane of the mouth, but merely through the common integument and muscles. It will sometimes suffice to make an incision on one side only. This cut generally heals readily, and little or no mark remains.

When the surfaces have not united, although the pins have been taken out or have discharged by ulceration, the edges may be readily kept in contact by a long narrow piece of plaster, bound round the head in the way I have described.

Bandages of various kinds have been recommended for this purpose, and were formerly much used in this hospital; but I think the plaster a far more certain application, as it is less likely to slip, and is much more easily applied.

The coronary artery will sometimes bleed very freely, but it should never be tied, for the presence of a ligature would necessarily impede the healing process, and thus render the cure more tardy. But it is of course of great importance to lose as little blood as possible in all operations on children. I therefore

always pass the pins through the two sides of the lip as quickly as possible, and then draw the parts together by the twisted suture, without wasting any time in trying to stop the bleeding, for that will always cease when the parts are thus brought together.

With regard to the age at which this operation is best performed, there has been great difference of opinion; but, so far as my experience goes (and I have operated as early as three weeks and as late as the twenty-first year), I do not think, in simple cases, it makes much difference. In the more complicated cases, the operation should always be performed at the earliest period.

I should, however, avoid, as far as possible, the period between six months and two years, because dentition is then going on. As a general rule, I think that the earlier you operate the better; for the most successful case I ever had was in a child, as stated above, only three weeks old.—*Medical Times*, February 1, 1850.

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*Removal of the Lower Jaw on the right side, for Cystic Disease; Recovery.*—(Under the care of Mr. Fergusson.)—We have had frequent opportunities of reporting cases of malignant diseases of bone, where the surgeon has the melancholy conviction, at the time of removing the affected parts, that the unfortunate tendency to reproduction will, sooner or later, destroy the patient; but the successful operation which we have this day to put upon record, was necessitated by an affection of bone, which holds out a fairer prospect. The osseous structure was here the seat of cystic disease, and as the whole of the jaw on the right side was removed, it is extremely probable that the evil is thoroughly eradicated. The case, from notes taken by Mr. Edwards, one of Mr. Fergusson's dressers, runs as follows:

L. S——, aged forty-eight, single, a professor of music, of fair complexion and nervous temperament, was admitted March 20, 1851, under the care of Mr. Fergusson, with a very prominent tumour occupying the greater portion of the inferior maxilla. The patient gave the following history:—Thirteen years ago his head was attacked with erysipelas, when the right cheek was observed to swell considerably, and continued to increase for some time. These symptoms, however, subsided; but three years

afterwards the patient began to suffer from toothache and pain, extending up the right side of the face. As the two molar teeth had become carious, they were extracted, and the pain subsided.

Two years subsequently a tumour formed over the alveoli whence the above-mentioned teeth had been removed; the patient made an incision into this swelling with a penknife; some glairy fluid escaped, and the parts seemed after a little while to be cicatrized. But the tumour did not completely subside; and the patient fell into the habit of puncturing and evacuating the contents of said swelling whenever it became distended with fluid. This continued for about six months, when the gum healed up, and no more uneasiness was felt. One year and a half after this subsidence, various cerebral symptoms set in, among which was the occasional inability of seeing more than a portion of a word at a time. While in this state the patient was suddenly seized, during his breakfast, with paralysis of the right side of the face; he lost the faculty of speech, and his mouth was drawn to the left side. This attack was, however, of very short duration, for all the symptoms disappeared in the course of three days, no remedies but a little purgative medicine having been taken.

At this period the body of the lower jaw on the right side, about midway between the joint and the symphysis, begun to expand outwardly; this swelling increased very slowly, and occasioned no pain; the protruded part felt hard and smooth, but on pressure a slight crackling could be heard. Within the last twelve months the growth has been more rapid; and the patient having consulted Mr. Fergusson about five months ago, the latter made an opening into the tumour within the mouth, where it was slightly protruding, and this measure gave exit to some glairy fluid. The part continued to discharge the same kind of liquid for some time, when the patient applied to another surgeon, who inserted *potassa fusa*, and kept open the part with lint tents.

This proceeding occasioned severe pain, and entirely changed the character of the discharge, which became *fœtid*, mixed with sloughs, and increased in quantity. Besides the two molar teeth already mentioned, the patient lost another molar and a bicuspid on the same side; the first fell out spontaneously, and a second was extracted. It is worthy of note that neither of these had any fangs left.

On examination, the tumour was found to be the size of a large orange, forming a solid mass, seemingly attached or forming part of the lower jaw on the right side, and extending from the angle of the maxilla to the symphysis. At the latter spot the bone appears to be gradually expanding into the tumour, which latter is hard, smooth, and painless to the touch. The skin over it is not in the slightest degree altered, and the swelling does not project much within the mouth; an opening exists, however, in the gum, through which the probe passes very easily into the cavity of the tumour. This bony cyst is filled with fœtid matter, which escapes when the patient inclines his head forward. The gum is rather spongy, but the general health good.

Mr. Fergusson ordered a silver double-grooved plate to be adapted to the interior of the mouth, with the view of receiving the upper and lower molar teeth on the sound side, by which means those of the affected side were kept about an inch apart. It was evident that no remedial means could be of avail, except the complete removal of the diseased portion of the jaw; and as the tumour had plainly involved the greater part of the latter, Mr. Fergusson resolved to remove the right half of the lower maxilla from the articular process to the symphysis.

On the 22d of March, the patient was brought into the theatre, and rendered insensible by chloroform. Mr. Fergusson began by extracting a lower incisor tooth and the canine on the right side; he then passed the point of a bistoury into the mouth, about half an inch below its angle, without dividing the red part of the lip. The knife was then made to run along the lower margin of the jaw to about the middle of the tumour, and the soft parts having been detached from the bone, Mr. Fergusson introduced the common straight saw, with which the bone was very clearly divided at the symphysis. The next step consisted in carrying the external incision over the tumour, nearly up to the articulation, and dissecting up the flap towards the eye and nose. Mr. Fergusson then rapidly separated the muscles attached to the inner surface of the jaw, and the latter having been disarticulated, the whole mass was removed.

The hæmorrhage was not by far so abundant as might be expected from the usual vascularity of the part; the facial artery was then tied both above and below, as well as the facial vein, from

which the blood issued profusely, the superior dental artery, and several other smaller branches. The margins along the line of incision were accurately brought together by stitches, and one of these, towards the centre, was left unfastened, to afford an escape for whatever oozing might take place, directions being given to have it tied in the evening. The patient, who had been kept under the influence of chloroform during the whole operation, was removed in very good condition.

Mr. Fergusson took occasion to remark to the pupils assembled, that the present was a good example of a benign tumour of the jaw; it had, however, created much deformity, and if not interfered with, would have ultimately worn out the patient. This tumour was one which the surgeon could, in the most legitimate manner, take away. He (Mr. Fergusson) had considered it advisable to remove the whole of one side of the jaw—first, because the disease had involved the greater portion of the bone; and secondly, as the small portion towards the condyle, which might be considered as sound, would have been of very little use to the patient; much time having besides been gained by not sawing the ramus, but disarticulating at once. The steps of the operation had been the same as are usually followed. Mr. Fergusson would, however, direct the attention of the pupils to the fact of his not dividing the red portion of the lip—a proceeding which, he thought, would be greatly conducive to a satisfactory appearance afterwards. He had likewise refrained from carrying the incision at once up to the ear, as he was anxious not to divide the facial artery until the most tedious and troublesome part of the operation, viz., sawing the bone, was accomplished.

Mr. Fergusson had found the straight common saw the most convenient instrument for dividing the symphysis—far preferable, indeed, to the circular, or the chain saw. The disarticulation had been greatly favored by the tumour being hard, and therefore affording a convenient lever. He had tied both the upper and the lower end of the facial artery, to obviate any chance of secondary hæmorrhage, as had once occurred in private practice in a similar case. Mr. Fergusson further stated, that the question of using chloroform during operations on the mouth was practically answered by the present case, where one of the most important operations usually performed on the face had been satisfactorily



accomplished during insensibility from this agent. The narcotism had been kept up to a full extent for a long time, no unpleasant effect had been produced on the larynx or on respiration, and the patient, as usual, had been unconscious of what was going forward.

Mr. Fergusson then proceeded to divide the tumour longitudinally, and the latter proved to be of the cystic kind, presenting a cavity which would have lodged a small orange. It was filled with a fœtid secretion, the shell of bone forming the walls of the cyst being generally about a quarter of an inch thick. It was now evident that the cyst had been formed by a dilatation of the walls of the jaw, and was lined by the same kind of membrane which is seen in chronic abscess. This membrane had now passed into a state of gangrene, probably from the caustic solution which had been used. The patient progressed very favorably, with the exception of a little cough, and discharge into the mouth. On the fourth day after the operation, the line of incision was closed by first intention; there was no pain, but the mouth was a little drawn to the left side. On the eighth day the patient was allowed beef-tea, eggs, and some veal. On the thirteenth day, he began wearing the silver apparatus between the front teeth, on the left side, so as to counteract the usual traction towards that portion of the face, and also in order to give support to the mouth and soft parts.

On the fifteenth day the patient left his bed, the wound being almost completely cicatrized, and soon afterwards he was discharged in a very favorable condition, being able to masticate tolerably on the left side, and not having experienced great prejudice in his articulation or appearance.

The formation of cysts within the substance of bone is not a very frequent pathological occurrence, though it is doubtless one which it is important to recognize and distinguish from malignant disease, as it is so amenable to remedial means. The history, shape, absence of pain, peculiar secretion, and crackling sensation, will for the most part be sufficient guides; the only growth with which these cysts might be confounded being another kind of cyst, well described by Dupuytren, containing a solid fibrous mass. The disease existing in Mr. Fergusson's patient is analogous to the affection mentioned by Mr. Stanley, in his work on the Bones, (p. 267,) "Membranous cysts, containing a glairy

fluid, originating within the jaw:—These cysts, in enlarging, usually cause expansion of the walls of the jaw, and they are found to possess more or less complete osseous parietes, apparently formed by hypertrophy of the cancellous structure of the jaw. Occasionally the membranous cysts, instead of expanding the walls of the jaw, cause the absorption of its outer wall, so that the tumour they form projects on the outer side of the jaw. This disease is usually of slow growth, and there have been instances in which the tumour of the jaw formed by it has acquired a large size."

The various circumstances connected with Mr. Fergusson's patient would tend to show that remedial agents have very little power over the growth and development of these osseous cysts, except, perhaps, they were very early attacked from without, when they do not show a tendency of protruding into the mouth. The present case will yield an additional proof of the comparative safety of removing one side of the lower jaw, and confirm the well-known fact that operations upon the inferior maxilla are much more likely to be successful than those upon the superior. The records of surgery afford many examples of a successful issue after removal of larger or smaller portions of the lower jaw.

Mr. Fergusson stated in his remarks that this case might seem decisive as to the propriety of using chloroform in operations upon the face; and it certainly appears that apprehensions are far too anxious in this respect. The patient, who had assumed the recumbent posture, was perfectly insensible through the whole operation, as Dr. Snow, who administered the anæsthetic agent, carefully held a sponge, dipped in chloroform, close to the patient's respiratory inlets, and thus succeeded, without obstructing the operator, in keeping the man in a perfect state of narcotism.

In examining the patient, just before he left the hospital, we were struck by the small amount of deformity produced by the obliteration of so important a portion of the face; and as Mr. Fergusson had not divided the red portion of the lip, the continuity and symmetry of the mouth was uninterrupted, and the lines of incision hardly distinguishable. This result is the more satisfactory, as it may be presumed that fibrinous matter will in time be thrown out, and give the parts an useful amount of firmness. The small amount of hæmorrhage during the operation

will go far to prove that Mott, Cusack, Walter, Græfe, and Gensoul, were rather too timid when they tied the carotid artery previous to the operation. Lisfranc very wisely dispensed with this preliminary step.—*London Lancet*.

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### THE GOLD USED BY DENTISTS.

In a paragraph in the *Times* lately, entitled “The Gold Used by Dentists,” it was stated that the impure metals and bad gold used for plates for the mouth, were productive of great disturbance to the health, being often converted into poisonous oxides; and the writer suggests as a remedy for such practice, that every plate should be *Hall-marked* in the same manner as gold watch-cases, &c. This plan might do—but how is it to be enforced? as a vast many ignorant, vain persons will suffer any thing rather than expose what they are pleased to call “their misfortune,” or as they ought to designate it, their “childish weakness!” The loss of teeth is indeed a great annoyance, as affecting personal comfort and appearance, but still there is not, therefore, any absolute necessity that unprincipled charlatans should aggravate the evil by using base metals.

Respectable dentists use eighteen carat gold, which is good enough to be stamped. They could not use it pure, from its extreme ductility, as plates made of it in the latter condition would bend. But even the very best gold that is used, however slightly alloyed, will often induce a perceptible galvanic action in the mouths of individuals of a strumous habit.

It is, therefore, not surprising that the “Cheap-Jack Advertisers” should not be very particular as to the quantity of alloy they use; some of their dupes suffer such a constant abnormal secretion of saliva, that it becomes a chronic ptyalism; and if the plates in this state are examined, they are found coated with a green oxide of copper!

The remedy for this class of evils is of a two-fold kind: that that there should be more real knowledge disseminated among the people, and a College of Surgeon-dentists, so as to enable the public to distinguish the respectable man from the mere charlatan.

I am, sir, yours, &c., J. LEVISON.

Devonshire-place, Brighton, April, 1851.—*London Lancet*.

*On Cements for the Teeth.*—By J. L. LEVISON, Esq., Brighton.—Mr. Levison, of Brighton, comments in terms of deserved severity on dentist's handbills, such as one which he encloses to us, relative to a certain "sucedaneum." On the matter of cements generally, Mr. Levison states, "I have often had to impress the unfitness of using alloys and amalgams in the mouth," and he refers to a paper which he published in 1829, in which—

"By well-observed facts, it was shown, that whenever *two* metals are used, even gold and silver, there is invariably a chemical change in the saliva, by the formation of an acid *sui generis*, as shown by the removal of the lime of the teeth. In the *Lancet*, of the year 1831, I entered into greater details, showing that mercury and tin, mercury and silver, or bismuth, tin and lead, (compositions which form the succedaneums and fusible cements of dentists,) produced still more destructive consequences. These papers," he adds, "were published long before the American dentists waged war against amalgams, or inflicted on those who used them the pains and penalties of drumming the delinquents out of those associations which ornament the profession of dental surgery on the American continent."

Mr. Levison concludes his communication with an anecdote, to show that the pretensions of quacks often make thoughtless persons insult men of principle, and qualified practitioners.

"A lady called to have a tooth stopped: without waiting to ask the dentist what he used, she said, 'I must have it stopped with cement.' 'I do not use it,' was the reply; when the patient said, somewhat pertly, 'I suppose you can't.' The gentleman felt indignant at this gratuitous insult, and told the lady that 'it certainly required very great skill and profound knowledge to put something *soft* into a cavity; that he would therefore insist on her remaining to see him do such a marvellous feat,' and having, before her face, made an amalgam of tin, he said, 'You perceive I can make the cement, but I never have, nor ever will use it.' The lady colored deeply, and asked him, in more respectful language, what he did use? He told her pure gold. She had her tooth filled with gold, and retained it for some years without pain or fœtor."—*London Lancet*.

# THE DENTAL NEWS LETTER.

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JULY, 1851.

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## A LITTLE CHAT WITH OUR SUBSCRIBERS.

We commenced this volume with thirty-two pages to the number. To the third number eight pages were added, and to this number eight more are added, making *forty-eight pages to the number*, at which size we design continuing the next volume of the News Letter. We shall continue the subscription price at *one dollar*.

Now to sustain this increased size, we desire more original matter, and as many in the profession have much to communicate in *conversation*, we wish to induce them, if possible, to put upon paper their thoughts and experience, which they have heretofore neglected to do, either from culpable modesty, or from a disinclination to write; but this is reprehensible and should not be. We repeat again what we have often said before, that it is unfair to be profiting from others' experience and not reciprocating in some way. The day for secrets in the practice of dentistry has gone by—principles are well known, but the difference in treatment or practice is what we want. If we could then, induce all reputable practitioners to give to the profession, through the medium of some of the dental periodicals, their various modes of treatment, with all anomalous cases of curiosity or interest, what a fund of information and instruction would be derived, and comparatively with but little labor, and to the great advantage of all. We could enlarge upon this subject, but space forbids, and we will only say further, that we hope the truth of our position will be acknowledged by many, in setting about correcting at once their former negligence.

We invite communications on all subjects connected with dentistry.

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*Errata from January Number.*—On page 50, fifth line from top, the word mnemotechny is spelt with a *p*, which should be an *m*.

*The American Society of Dental Surgeons.*—This society, we understand, holds its next meeting in Philadelphia, early in August.

If we had any voice in the matter, we would move that the whole dental profession in the city and county be invited to attend its sittings and participate in the discussions; that thus its usefulness may be increased, and a more general spirit of harmony and fellowship be engendered. What say you, gentlemen?

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*Ohio College of Dental Surgeons.*—We would call attention to the advertisement of this useful institution, which will be found on another page.

This college is now, we are informed, in the enjoyment of far better prospects than at any time previous, and we wish it, as it deserves, abundant success.

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I. B. B. is informed that his communication was received, but not in time for this issue.

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### BUSINESS NOTICES.

*Corundum.*—We have just received from England a large quantity of this article said to be of a superior quality, which we obtained with some considerable difficulty in consequence of its scarcity. We shall use all despatch in making up some wheels, slabs, etc.

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*Platina.*—We have made arrangements in Europe for constant supplies of platina plate and wire, also very thin plate for batteries, etc., and are prepared to supply all orders at a fair price.

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*New Postage Law.*—In consequence of the reduction in postage, we wish to make the following proposition to our customers: If they will pre-pay their letters to us, we will pre-pay ours to them, unless of considerable amount, in which case we will pre-pay and charge them.

By this arrangement of pre-paying much will be saved by both parties.

JONES, WHITE & Co.



For the Dental News Letter.

LONDON, June 5, 1851.

*Gentlemen:*—As promised in my last, I can now give you some slight description of the articles of dentistry on exhibition at the “World’s Fair;” but I fear you may think it very meagre. If so, I can only say the display is meagre—far, far short of my anticipations. Dentistry in Europe affords but a limited subject for a long letter, for the reason that the mass of the work is after the same style, although with different degrees of finish, and in describing one collection all are described.

In all my researches through the exhibition, I found the following:

One case only from Switzerland, which consisted chiefly of bone work, or teeth carved from the hippopotamus, porcelain teeth on bone bases, and one or two cases of French teeth, on plates which were very narrow, and the soldering very rough. The clasps, from their arrangement, were well calculated to injure or destroy the teeth which they embraced. There was one case of human teeth, mounted on gold plate, which was neatly done, and an apparatus for regulating the teeth, which was very complicated and cumbersome, and which was to be attached to the teeth with strings. I may say of the bone work that it was neatly and ingeniously carved.

I may say here that I formed the impression that spiral springs are used to a much greater extent here than with us.

From France I could find but one specimen case, which, for size and the quantity of work it contained, was quite sufficient to represent the whole “Republic.” At a venture, I would say there were at least fifty different specimens in the case, among which were some nine full cases, in active operation, chewing away lustily; also an entirely new plan of exhibiting, to the best or worst advantage, the want of teeth, after this fashion: as the jaw opens, two or three teeth in the upper jaw slowly move out of sight, leaving an ugly space, particularly remarkable when the jaws come together, then when the jaws open again, these two or three teeth come back to their place, and show the beauty of a perfect set of teeth. Another case is made to revolve slowly, by pivots in the sides, thus showing the shape and workmanship all around, also a great number of small pieces of bone work,

or French teeth, on very narrow gold plates, and the clasps made by continuing a small strip of the plate to bend around the adjoining teeth, all beautifully finished and showing much ingenuity, but very unsubstantial and temporary. This collection was a fair exhibit of the majority of French workmanship, only of better finish; and just such cases, only smaller, may be seen at the doors of most of the dentists in Paris, besides numerous flaming placards on the walls, and abundant advertisements in the newspapers, setting forth the superior abilities of Monsieur so and so, surgeon dentist.

From Prussia, one case containing specimens of artificial teeth and samples of the material, which were very similar in style to those made by the French, but hardly so well formed. As some of your readers may not have seen the French teeth, I will endeavor a description of them. They present the appearance, and are about the thickness of the American teeth, but instead of round pins in the back for soldering, they have three narrow pieces of platina plate, two on one side, and one on the other of a groove which runs longitudinally along the back of the tooth to nearly the cutting edge. In mounting them, a pin suiting the size of the groove, is soldered to the plate upright, and the slips of platina plate imbedded in the tooth are bent over the wire and soft soldered. This makes a clumsy piece of work, and must be uncomfortable to the wearer, because they present such a rough and uneven surface to the tongue; besides, they are not, as may well be imagined, very strong, mounted in this manner; and again, the teeth are very opaque and unnatural in appearance.

Passing over a case or two of no possible interest, I come to the English collection, which is more full than that of any other country.

There are some fifteen cases containing artificial teeth mounted, most of which are, however, bone work. I find that a great proportion of artificial teeth in this country is of this hippopotamus bone, all of which are beautifully carved and very accurately fitted, showing great ingenuity in their adaptation and skill, and rapidity in carving. That "practice makes perfect," is abundantly proven in this branch, and I give them credit for beautiful bone work, as well as highly finished plate work. It is either a misfortune or good fortune, that all this kind of work

has to be done over once a year, at most, which would not suit us Americans, as we could not spare the time, and would not like to spend the means, to have a new operation yearly. One argument used here in favor of bone work is, that there is no grating sensation experienced by the wearer, as is the case, to some slight extent, with porcelain teeth; but I think this objection to porcelain teeth would soon cease, if persons would but wear them a short time, and who would not prefer some slight temporary annoyance with porcelain teeth, to the extreme unpleasantness, if not filthiness, of bone teeth? I would, at least, and I speak knowingly, and I think all who wear bone teeth would, if they but knew the difference in point of cleanliness and permanency. Another plan here is, to mount both porcelain and natural teeth on bone bases, and lastly, porcelain and natural teeth on gold and silver plate; however, the latter material is not often used. All the porcelain teeth manufactured in England are, as many of your readers know, made as thick, if not thicker than the natural organs, with holes through, bushed with gold or platina, a few, however, without any metal lining. In mounting them, the pins on which the teeth set, are adjusted and soldered to the plate in the proper position; previously, however, the teeth are ground to fit the plate accurately, and in this, as well as in bone work, the fit is complete, no space being left for the accumulation of food or other substance. After the pins are all arranged and soldered to the plate, they are coated with melted sulphur, and the teeth are slipped on and pressed to their position, when the sulphur hardens, thus holding the tooth tolerably firm. Another method is, to wrap the pin, previously made rough, with floss silk, and force the tooth on, the tube in the tooth having been roughened also.

I had always looked upon this method of making and setting teeth, after contrasting it with the American mode, as temporary, and I confess my opinion has not changed after examining the variety on exhibition in London.

All the plate work is beautifully gotten up, very highly polished, and neat in all particulars.

I noticed artificial porcelain teeth, deposited by two manufacturers in London, all finely finished and of natural shapes, but opaque, without the translucency of the best American teeth,

and too thick; for, when worn in the mouth, they would, I think, fill it uncomfortably full, and confine the tongue to too small limits.

There were several appliances to dentistry, in the shape of a "universal drill for removing decay in the teeth," at an angle of forty-five degrees, which was worked by a crank in the handle. An "electric galvanic apparatus for dental purposes," which was more complicated than necessary. "A compress for alveolar hæmorrhage," which was arranged to pass over and around the head, well calculated to remind one of a straight jacket or a dog's muzzle in dog days, but not half as important or necessary as either. Also, "a series of mechanical adaptations for regulating and preventing the irregularities of the permanent teeth." There was a collection of gold arrangements for capping, banding, etc., rather clumsy, to my notion, and not to be compared, in effectiveness and convenience, to the application of the spiral spring to the same purpose.

Also, "rotary scissors and knife, for dividing nerves," suggestive of the ligamentum dentis. Also, a mechanical leech, which struck me as being quite suitable for dental purposes, doing away with the repulsive crawling live leech.

I was particularly pleased with a series of experiments which were exhibited, showing the unfitness of bone work and silver plates. This was done by subjecting them to the action of dilute acid, which was dissolving them at a slow rate, then, with a written card explaining the whole matter to the spectator, telling him that the acid in the saliva would likewise decompose the bone and oxydize the silver, though not so rapidly. Many visitors were informing themselves on the subject, and I cannot but think that these public experiments will materially assist in doing away with that temporary description of dentistry.

I noticed some few cases of teeth mounted upon tortoise shell and gutta percha bases, but the first substance, I was informed, would not retain the shape which was given it by heat, but had a tendency and would gradually return to its original shape. The gutta percha was too soft and yielding, especially so when at the temperature of the mouth.

We now come to the collection from the United States, which I sum up briefly. Two cases of block teeth, mounted. One

case of blocks, not mounted. Three cases of gold foil, one of which is from Jones, White & McCurdy. Five cases of mechanical dentistry. One case dental instruments. One case tooth wash and dentrifice. Three cases of artificial teeth, one of which is from Jones, White & McCurdy. And last, though not least, two cases of plugged teeth, one of which is marked simply "Philadelphia," and is, unquestionably, among the best and prettiest fillings I ever saw. They reminded me forcibly of a certain gentleman's workmanship, but whether his or not I would not like to say. However, Philadelphia has the honor of it, which is no small praise. The other case is, to all appearance, very creditable, and they both reflect much honor upon American dentistry.

Of the American teeth here, it, perhaps, does not become me to say much; but this I may say, and I think it is evident to any unprejudiced mind, that they, or some of them, are much more translucent and vital in appearance, more beautifully tinted, and more natural in shape and shade, than any others from any quarter. And when mounted, as it is done in our country, and shown here by several beautiful specimens, (all of which are from Philadelphia and New York,) they can be worn with more ease and comfort, and be more serviceable and permanent than any other style of teeth mounted in any other manner. I may be prejudiced, but I think a fair comparison, by competent judges, will prove the correctness of the above.

The amount of dentistry performed in England is quite limited, in comparison with our own country; for these reasons, probably, that their teeth generally are more durable. Again, it is the upper classes only who can afford it—while in France, their teeth are, to all appearance, quite as frail, and decay quite as soon, as with us; yet there, also, but few can afford to pay for it. In Germany their teeth look as if they would never know decay, and, consequently, the dentist gets but a poor support. I would not neglect to acknowledge the courtesy extended to me by many gentlemen in the profession, among whom I may mention Dr. James Robinson, of London, Dr. Mein, of Edinburgh, Dr. Brophy, of Dublin, Dr. Helsby, of Manchester, and Dr. Evans, of Paris. Many others I might mention, but they will all receive my hearty thanks, and I can only say, I hope I may have the opportunity of reciprocating, in some way. With Dr. Evans,

who is an old acquaintance, I felt quite at home. And I will just say here, that America bears off the palm in dentistry; for Dr. Evans numbers among his patrons the Kings of Bavaria, Prussia and Greece, and the President of the French Republic, beside numbers of the nobility, among whom are several prominent persons at the Court of the Emperor of Russia, and all obtained through several difficult but successful operations performed for persons high in office and influence at some of the above-named courts. I wish him success, with all my heart, as he well deserves it.

To conclude this very long and desultory letter, I would say, that great quantities of amalgam are used in France and Germany, and much in England, and oftentimes the filling is put in without removing the decay. Low grades of gold plate are used, also some silver, and, occasionally, palladium.

The prices, so far as I could get at them, range about as with us, some getting high rates, and some working very cheap for very cheap work. Occasionally, however, as with Drs. Brewster and Evans of Paris, a large sum is received for an important operation, when performed for an important personage.

In haste, yours, truly, J. R. McCURDY.

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*A Popular Treatise on the Teeth: Designed for the Use of Families, and as a Manual for the Student and the Practical Dentist, etc., etc.* By MAYO G. SMITH, Dental Surgeon, Boston.—This work purports to be more of a popular than a professional character, yet claims somewhat of the latter. We are, however, altogether doubtful as to the utility of such works, as they are not generally sufficiently elementary for the mass, and, therefore, cannot be of a very instructive or explanatory nature, yet assume and advance so much as peculiar, that they beget in the minds of those who read them, an undue confidence in their own knowledge, and thus induce an attempt to apply that so acquired to the treatment of their own and others' diseases, producing, in this way, more extensive and irremediable injury than an ignorant practitioner; for he would have at least the advantage of an experience, more or less extended, to guide him; besides, his failures are, of necessity, comparatively few, whilst the former may be illimitable, being proportionate only to the diffusion of the book. But when it is attempted to combine in the



same work, matter for both the professional and popular mind, it must necessarily prove a failure; for that which would be interesting and instructive to the former, would be too abstruse for the latter, while that adapted to the latter would be of no value to the former, comprising, as it does generally, those things which had been long since acquired, whilst they would only mislead the student by furnishing, in many instances, incorrect ideas and views of the subject. And also, if there should be any errors, either of the writer or printer, in the directions for treatment, such might prove fatal if acted upon by the uneducated, while the educated or professional person would detect, avoid, or correct them, and thus prevent their otherwise injurious and even fatal results. For example, on page 97 of the work under consideration, in treating of diarrhœa from deciduous dentition, the author recommends clysters of starch containing *twenty drops of the tincture of opium* or laudanum. Now, we assert, that if such directions were followed, the majority, if not all, of the infants so treated would die from poisoning, as it will be seen by referring to the United States Dispensatory, that 25 drops of this remedy is considered a full dose for an adult; and abundant evidence of the power of this drug, if such were wanting, is furnished in the disastrous effects of very much smaller doses, in the recent deaths of several children in New York city. Hence the *evil tendency* of this and similar general directions must be apparent; and as in one case, so in many others, and even to the *other* extreme, in which treatment, equivalent to nothing at all, is brought forward as remedials. Thus, for instance, the placebos of various quack practices, also recommended in the work, thereby causing sufferers to neglect their own cases, by this experimental mode of treatment, until they assume such a condition that no course of treatment, no matter how skilfully instituted, can be of service; whilst if in their incipency they had sought the counsel and aid of those properly qualified, the evil might have been speedily corrected. Notwithstanding these views, we heartily coincide with the author in the hope that a knowledge of the anatomy and physiology of the human body, will soon form an indispensable part of the preliminary education of the young; believing that a correct appreciation of this subject would prevent many of the evil practices now prevalent, and

thus advance the welfare and contribute to the happiness of mankind. With regard, however, to the work, it contains some facts of interest and value to the profession, and we therefore commend it to the attention of those desirous of acquiring all that is known upon the subjects of which it treats.

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### I HAD A TOOTH.

A PARODY — BY I. B. BRANCH, DENTIST.

I had a tooth, which was not all a tooth,  
Part of the crown was gone, and now and then  
A gentle twinge, from 'neath its hollow walls,  
(Rayless, and dark, as are the caves of earth,  
When blind and blackening in the moonless air,  
She swings, awaiting morn), warned me to seek  
The Dentist's aid. But I forgot, full soon,  
Each pang, in dread of Dental operation.  
Friends' hearts seem'd chilled into a selfish prayer,  
That I would have it filled, and shun the throes  
From places in the crown—those habitations  
Where microscopic thousands safely dwell.  
Warning beacons came, whene'er cold water  
Waked those insects in their ivory homes,  
Yet came in vain; with zeal I sought to shun  
The Dentist's hands, until my swollen face  
Drove all my peace away. Had no keen eye  
Of pure volcanic mirth, kindled its torch  
At my distorted phiz, 't were well. One hope,  
One fearful hope, was all my heart contained;  
E'en that was set on fire, and hour by hour  
It fell and faded—"And must this throbbing trunk,  
Exhumed by iron hands, be torn away"—  
My brows grew pale, and in the broad daylight  
Wore unmanly aspect. And as by fits  
The pangs returned upon me, I laid down,  
And hid my eyes, and sought in vain for rest;  
Then with my chin upon my clenched fists  
I said, "Oh that I'd had it filled in time"—  
Then next I tried that burning "oil of smoke,"  
In mad disquietude. Meanwhile the sky,  
And all the world, seemed mocking at my pain.  
Then came another pang, more fierce than all;  
I gnashed my teeth, and howled, and wildly shriek'd,  
And my full heart did swell and rise, as if,  
With powerful wings, it would at once escape—  
Then tame, and tremulous, 't would seem to crawl  
Away, and twine around my fortitude,

Hissing, but stingless—eating it up for food.  
 The pangs which for a moment were no more,  
 Did glut themselves again.— Each meal was bought  
 With pain—each mouthful, sullenly apart  
 Was bolted down unchewed. No patience left,  
 All center'd in one thought; that thought was death,  
 Immediate, and inglorious, to each fang,  
 That was the filthy cause of all that pain,  
 Which fed upon my *nerves*. “This aching tooth  
 Shall die! Its bones, tombless, shall be consumed  
 When once it is assailed—I’m master then.  
 The filthy, useless thing, long, too long kept  
 And nursed, lest it should hold my rest at bay  
 Till morning dawned. Or lest, when once ’t was out,  
 My jaws grow lank as if they wanted food.”  
 This said, with piteous look, I sat me down,  
 Beneath the hand, that gave the fatal grip—  
 Then came one quick, shrill, desolating cry—  
 The tooth was out—pain vanished by degrees,  
 There lay two roots of an enormous size,  
 And they and I were enemies. Full soon  
 The glowing embers of the fireplace,  
 Kept for such usage, raked up  
 And taking their cold skeletons in hand  
 I blowed as if for life, and made a flame  
 Which was no mockery. Then I lifted up  
 My hand and threw. Then thanked the Dentist  
 And inquired how loud I shrieked, when died  
 That tooth of mortal hideousness.  
 It was a tooth upon whose crown decay  
 Had written fiend.

The place is void,  
 And that “populous” and “powerful” lump  
 Of ivory in decay, is lifeless now.  
 A lump of lime—a chaos of ashes,  
 No bloody rivers traverse its channels now,  
 And nothing stirs within its silent depths.  
 Patience slept, upon a waveless sea,  
 That long had tossed her madly to and fro,  
 And all was still; I laid me down and slept,  
 Without a dream. My pain was gone, my tooth  
 Was in the grate. The moon (fair mistress still)  
 Looked calmly down that night, and bade me rest  
 In peace. The clouds pursued their way, as if  
 They ne’er had seen an aching tooth:  
 And all was *Peace*. To me peace was the universe.

## DR. TAYLOR ON FILLING TEETH.

*An Address delivered before the Mississippi Valley Association of Dental Surgeons, at Cincinnati, September 10, 1850.*

BY JAMES TAYLOR, M. D., D. D. S.

GENTLEMEN OF THE MISSISSIPPI VALLEY ASSOCIATION OF DENTAL SURGEONS :—We convene on the present occasion in accordance with the requisition of that constitution which binds us together as a society. May we not with profit take a retrospect of the past year, and refresh our memories with the many mercies enjoyed? Disease, like the Simoon's blast, has swept over the land. Thousands have fallen. We are preserved. A merciful Providence has kept us, and so far as I know, not one of this association is numbered with the dead. The scourge has passed; health, peace, and plenty abounds; and the dried-up streams of social life, which had been blasted and checked during the prevalence of the epidemic, begin again to ebb and flow with their accustomed healthful and benign influence; and on the tide of this renewed and reviving stream of social life, we are permitted again to assemble and consult on the best interests of our profession.

Let us endeavor to do this with a proper feeling of our individual responsibility, duly impressed with the importance of the profession to which we belong. "Let us press on towards the mark for the prize," each endeavoring to bring into the grand depot of dental knowledge something which shall benefit our race, and give our science a still larger claim on the confidence of an enlightened public.

We meet to compare practice, to receive and impart useful knowledge, to spend a few days in the discussion of scientific subjects, and extend to each other that fraternal feeling which should ever characterize those of the same profession. Let us, therefore, throw aside every feeling but love—love for each other, and for that truth on which the temple of our science must be erected. Let every sentiment, every preconceived opinion, be held subservient to this great principle—this broad platform on which all true science must stand. We meet untrammelled by any of the *isms* of the day; dental science being only a speciality of general surgery, stands more securely aloof from the innovations of the age. No Homœopathic dose will suit in the extraction

of a tooth—no Hydropathic ablution can insert a set of teeth; and since the late attempt to introduce steam into the practice of dental surgery, no change has taken place in the regular routine of the profession. In the west we have happily escaped even the heat and excitement of the amalgam controversy. I know not if even the southern improvement on the screw has been able to disturb in a single instance the equanimity of any member of this society.

Medical science, in all its branches, constitutes one of the most instructive and ennobling studies in which we can engage. Instructive, because at every step we behold the continued exhibition of infinite wisdom; and as we advance and learn more and more of the mysterious frame-work to which this science is applied, we can the more fully enter into the feelings of the psalmist, until we with him can exclaim: "Man is fearfully and wonderfully made."

The study is ennobling, because it teaches us the frailty of man—our utter dependence on a power Supreme. It takes us from the study of nature to nature's God—points us back through the long vista of time, to a period when perfection was stamped on all the work of creation. Man was perfect; disease and death knew not a victim. Imagination can scarce do justice to the picture of man in his perfection. Every movement is ease, and every muscle acts its part in perfect harmony. No blot or blemish is to be seen. The ear catches the most distant sound as its vibration strikes on its delicate and finely attuned tympanum; melodies afar as by angels sung, are caught on the passing zephyrs. The eye pierces the distant horizon, and beholds spread out in the vast panorama a broad and extended domain filled with the beauties of a beneficent Creator. Every sense is attuned and works harmoniously; each organ is in unison, and the teeth present a perfection but rarely if ever seen. But man fell, and disease and death has ever since made sad havoc on the human race. The most dense and indestructible part of our system is not exempt from this direful calamity; and the teeth with their beautiful enamel; hard and compact in its basalt-like columns, capping and shielding the hardest portion of the osseous structure, also yield to the fearful sentence: "Dust thou art, and unto dust thou shalt return." Thus man has been made to feel,

that to prolong his days he must employ all the aids which God in his mercy has scattered in rich profusion around him. This feeling of self-preservation has led to an investigation of almost every material substance in nature, until their constituent principles and remedial effects have been discovered.

How delightful the task to mitigate the sufferings of a fellow-being, to arrest disease in its rapid progress, and give ease and comfort. This is our privilege, and well does it repay for days, and months, and years of labored study.

But, gentlemen, I would not forget that our meetings are designed to be of a strictly practical character—that however pleasant it might be to speculate on the gradual approach and development of disease, and that science which points out a remedy, yet at this time I have another subject assigned me, and hence must forego this pleasure, and call your attention at once to the operation of filling teeth. It will be recollected that at the close of our last meeting this subject was under discussion.

I am aware that it is a difficult subject to handle. There are many difficulties which so often occur in the proper performance of this operation, that to anticipate them at all times is almost impossible, and they are even difficult to describe. I therefore do not expect to do the subject justice. I can only hope to in part describe my mode of operating, and elicit a free and full discussion of the subject.

There is no operation in dental surgery so important—none which is capable of affording so much of real service to our patients. The operation of extraction, it is true, is often of vast importance and absolutely essential to the health and comfort of an individual, yet how seldom would this be necessary if the former was resorted to in time, and successfully performed. The operation of filling steps in as a preventive to extraction, and the perfection of our science would do much to prevent the need of the latter.

To be continued.

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*A new and expeditious mode of getting teeth inserted.*—A down-east editor advises his readers, if they wish to get *teeth inserted*, to go and steal fruit where a good watch-dog is on guard.

*W. H. Greening* 5



# SEVENTH ANNUAL ANNOUNCEMENT OF THE OHIO COLLEGE OF DENTAL SURGERY.

SESSION OF 1851-52.

The regular course of Lectures in this Institution commences the first Monday of November and closes on the 20th of February.

## FACULTY.

JAMES TAYLOR, M. D., D. D. S., *Professor of the Institutes and Practice of Dental Surgery.*

THOMAS WOOD, M. D., *Professor of Anatomy and Physiology.*

GEORGE MENDENHALL, M. D., *Professor of Pathology and Therapeutics.*

JOHN ALLEN, D. D. S., *Professor of Operative and Mechanical Dentistry.*

G. L. VAN EMON, A. M., D. D. S., *Lecturer on Dental Chemistry and Demonstrator of Operative and Mechanical Dentistry.*

The Faculty would take the present opportunity to announce to the profession the organization of the Ohio College of Dental Surgeons on a permanent basis. The College building, anatomical preparations, Dental Museum, &c., &c., have been purchased by an association of members of the profession, and permanently set apart by them and their successors as an institution for the promotion of Dental Science. The appropriation of three thousand eight hundred dollars for this object, by the stockholders, has been done with the strong conviction of the necessity of such an Institution; and that it may entirely meet the wishes of the profession at large, this association has nominated to the Trustees the present Faculty, and which by them have been appointed to their respective chairs.

It is the design of the faculty to make the course as thorough and practical as possible.

The increasing demand for gratuitous operations in the Dental Infirmary, now hold out to the student every inducement which can be desired. The daily operations in this department of the college affords opportunity for every student to engage in practice. During the last session near one hundred teeth were inserted, besides a great deal of filling, extracting, &c., &c., and toward the close of the session more patients applied than could be attended to by the class.

The arrangements in the laboratory will be such as to afford every facility in mechanical dentistry, and a Demonstrator of acknowledged capacity has been selected for this department.

The Anatomical Rooms and Dental Infirmary will be opened on the first of October.

The object of the Dental College has always been, to combine with that mechanical knowledge which is requisite to the successful dental practitioner, the general principles of medical and surgical science; always keeping in view the fact that dentistry is a part of the same general science, subject to, and governed by the same laws, that dental operations, not based on a correct knowledge of anatomy, physiology, therapeutics, &c., will most likely prove injurious to the patient, and keep up that general prejudice to the profession, which has been generated and kept alive by ignorant and empirical operators. The course will, therefore, be such as to insure a thorough medico-dental education.

The committee for the examination of the graduating class will be filled up by the issuing of the annual circulars.

Tickets for the entire course, including Matriculation fee, \$100 00

Diploma fee, - - - - - 25 00

Good board can be had from \$2 to \$3 per week.

JAMES TAYLOR, *Dezn.*

## PREMIUM TEETH.

We now assume for our manufactures the title of Premium Teeth, believing that we have fairly and fully earned it. We have chronicled in the News Letter, as we went along, the reception of medals as received, and we have now to notice the following awards made us by the Mechanics' Institute, of Baltimore, and the Franklin Institute, of Philadelphia, at their last exhibitions. From each a SILVER MEDAL—FIRST PREMIUMS.

The Committee on Dentistry of the Franklin Institute, in their published report, speak as follows:

"This case is considered worthy of a special notice, for the following reasons:—The exceeding *vital* appearance which the teeth *maintain* when exposed to the *test of artificial light*, the nicely articulating surfaces of the bicuspid and molars, and the distinction between the first and second bicuspid, the first being smaller, thus gradually increasing the size from the incisors to the molars, and rendering the change less abrupt to the tongue. The *manner* in which the *platina pins* are inserted, is also adjudged to be a *decided improvement*. The committee award a FIRST PREMIUM."

What is peculiarly gratifying to us is, that the committees of both institutions consisted entirely, we were informed, of dentists, who, it is to be presumed, are the best judges of teeth.

It were needless for us to say a single word in favor of the teeth, or to give the many testimonials from private individuals in the profession, whose opinions we value highly; as the awards that have been made us by the various institutions and dental associations are deemed abundantly sufficient to prove the quality and establish the reputation of our manufactures.

We give below and on next page cuts of our principal medals.

## GOLD MEDALS.





Annex

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Annex

